

1214103

Analytical Data Package Prepared For
Pacific Northwest National Lab

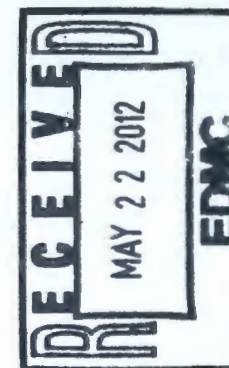
Radiochemical Analysis By

STL Richland STLRL

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Data Package Contains _____ Pages

Report Nbr: 30659



SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04769	I05-053	B1DP28	J5I200383-1	HK1L31AA	9HK1L310	5273295
		B1DP28	J5I200383-1	HK1L31AC	9HK1L310	5273293
		B1DP28	J5I200383-1	HK1L31AD	9HK1L310	5273298
		B1DP85	J5I200383-2	HK1MJ1AA	9HK1MJ10	5273295
		B1DP85	J5I200383-2	HK1MJ1AC	9HK1MJ10	5273267
		B1DP85	J5I200383-2	HK1MJ1AD	9HK1MJ10	5273293
		B1DP85	J5I200383-2	HK1MJ1AE	9HK1MJ10	5273300
		B1DP85	J5I200383-2	HK1MJ1AF	9HK1MJ10	5273298
	W05-009	B1DTH7	J5I220336-1	HK6411AA	9HK64110	5273266
		B1DTH0	J5I220336-2	HK65D1AA	9HK65D10	5273266
		B1DTH5	J5I220336-3	HK65H1AA	9HK65H10	5273295
		B1DTH5	J5I220336-3	HK65H1AC	9HK65H10	5273267
		B1DTH5	J5I220336-3	HK65H1AD	9HK65H10	5273293
		B1DTH5	J5I220336-3	HK65H1AE	9HK65H10	5273266
		B1DTH5	J5I220336-3	HK65H2AF	9HK65H20	5321304

Comments:

Report Nbr: 30659

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04769	W05-009	B1DTF5	J5I220336-4	HK65R1AA	9HK65R10	5273295
		B1DTF5	J5I220336-4	HK65R1AC	9HK65R10	5273266
		B1DTF5	J5I220336-4	HK65R2AD	9HK65R20	5321304
		B1DT91	J5I220336-5	HK6541AA	9HK65410	5273266
		B1DT91	J5I220336-5	HK6542AC	9HK65420	5321304
	I05-054	B1DTX3	J5I220345-1	HK66R1AA	9HK66R10	5273295
		B1DTX3	J5I220345-1	HK66R1AC	9HK66R10	5273296
		B1DTX3	J5I220345-1	HK66R1AD	9HK66R10	5273298
		B1DTX3	J5I220345-1	HK66R2AE	9HK66R20	5321304
	W05-009	B1DT65	J5I220359-1	HK69R1AA	9HK69R10	5273304
		B1DT65	J5I220359-1	HK69R1AC	9HK69R10	5273293
		B1DT65	J5I220359-1	HK69R1AD	9HK69R10	5273300
		B1DT65	J5I220359-1	HK69R1AE	9HK69R10	5273266
		B1DT65	J5I220359-1	HK69R2AF	9HK69R20	5321304
		B1DT57	J5I220359-2	HK6921AA	9HK69210	5273304
		B1DT57	J5I220359-2	HK6921AC	9HK69210	5273293
		B1DT57	J5I220359-2	HK6921AD	9HK69210	5273300
		B1DT57	J5I220359-2	HK6921AE	9HK69210	5273266
		B1DT57	J5I220359-2	HK6922AF	9HK69220	5321304
		B1DTD2	J5I240201-1	HLDCC1AA	9HLDCC10	5273295
		B1DTD2	J5I240201-1	HLDCC1AC	9HLDCC10	5273266
		B1DTD2	J5I240201-1	HLDCC2AD	9HLDCC20	5321304
		B1DTD7	J5I240201-2	HLDCF1AA	9HLDCF10	5273266
		B1DTD7	J5I240201-2	HLDCF2AC	9HLDCF20	5321304
		B1DTD8	J5I240201-3	HLDCG1AA	9HLDCG10	5273266
		B1DTD8	J5I240201-3	HLDCG2AC	9HLDCG20	5321304

Comments:

Report Nbr: 30659

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04769	I05-054	B1DTY1	J5I240202-1	HLDCH1AA	9HLDCH10	5273295
		B1DTY1	J5I240202-1	HLDCH1AC	9HLDCH10	5273296
		B1DTY1	J5I240202-1	HLDCH1AD	9HLDCH10	5273298
		B1DTY1	J5I240202-1	HLDCH1AE	9HLDCH10	5273266
		B1DTY1	J5I240202-1	HLDCH2AF	9HLDCH20	5321304
		B1DTY6	J5I240202-2	HLDCJ1AA	9HLDCJ10	5273295
		B1DTY6	J5I240202-2	HLDCJ1AC	9HLDCJ10	5273296
		B1DTY6	J5I240202-2	HLDCJ1AD	9HLDCJ10	5273298
		B1DTY6	J5I240202-2	HLDCJ1AE	9HLDCJ10	5273266
		B1DTY6	J5I240202-2	HLDCJ3AF	9HLDCJ30	5321304
	W05-009	B1DTC4	J5I240203-1	HLDC1AA	9HLDCL10	5273266
		B1DTC4	J5I240203-1	HLDC1AC	9HLDCL20	5321304
		B1DRW4	J5I240203-2	HLDCM1AA	9HLDCM10	5273295
		B1DRW4	J5I240203-2	HLDCM1AC	9HLDCM10	5273267
		B1DRW4	J5I240203-2	HLDCM1AD	9HLDCM10	5273293
		B1DRW8	J5I240203-3	HLDCN1AA	9HLDCN10	5273295
		B1DRW8	J5I240203-3	HLDCN1AC	9HLDCN10	5273267
		B1DRW8	J5I240203-3	HLDCN1AD	9HLDCN10	5273293
	A05-013	B1DMV7	J5I240204-1	HLDCP1AA	9HLDCP10	5273296
		B1DMV7	J5I240204-1	HLDCP1AC	9HLDCP10	5273266
		B1DMV7	J5I240204-1	HLDCP2AD	9HLDCP20	5321304
		B1DMT9	J5I240204-2	HLDCT1AA	9HLDCT10	5273296
		B1DMT9	J5I240204-2	HLDCT1AC	9HLDCT10	5273266
		B1DMT9	J5I240204-2	HLDCT2AD	9HLDCT20	5321304

Comments:

Certificate of Analysis

Pacific Northwest National Laboratories
Sigma V Building
Richland, WA 99352

November 28, 2005

Attention: Dot Stewart

SAF Number	:	I05-053, W05-009, I05-054, A05-013
Date SDG Closed	:	September 24, 2005
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W04769
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between September 20, 2005 and September 23, 2005, twenty water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Pacific Northwest National Laboratories (PGW) specific IDs:

<u>PGW ID#</u>	<u>STLR ID#</u>	<u>MATRIX</u>	<u>DATE OF RECEIPT</u>
B1DP28	HK1L3	WATER	9/20/05
B1DP85	HK1MJ	WATER	9/20/05
B1DT65	HK69R	WATER	9/22/05
B1DT57	HK692	WATER	9/22/05
B1DTH7	HK641	WATER	9/22/05
B1DTH0	HK65D	WATER	9/22/05
B1DTH5	HK65H	WATER	9/22/05
B1DTF5	HK65R	WATER	9/22/05
B1DT91	HK654	WATER	9/22/05
B1DTX3	HK66R	WATER	9/22/05
B1DTY1	HLDCJ	WATER	9/23/05
B1DTY6	HLDCJ	WATER	9/23/05
B1DTC4	HLDCJ	WATER	9/23/05

B1DRW4	HLDCM	WATER	9/23/05
B1DRW8	HLDCN	WATER	9/23/05
B1DMV7	HLDCP	WATER	9/23/05
B1DMT9	HLDCI	WATER	9/23/05
B1DTD2	HLDCD	WATER	9/23/05
B1DTD7	HLDCF	WATER	9/23/05
B1DTD8	HLDCG	WATER	9/23/05

II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analyses were:

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014

Gross Beta by method RICH-RC-5014

Strontium-90 by method RICH-RC-5006

Gamma Spectroscopy

Gamma Spec (LL) by method RICH-RC-5017

Iodine-129 (LL) by method RICH-RC-5025

Liquid Scintillation Counting

Technetium-99 by TEVA method RICH-RC-5065

Tritium by method RICH-RC-5007

Laser Induced Phosphorimetry

Total Uranium by method RICH-RC-5058

Chemical Analysis

Total Coliform by method 9223

IV. Quality Control

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

V. Comments

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014:

The LCS, batch blank, samples and sample duplicate (B1DRW4) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:

The achieved MDA for sample B1DT65 was greater than the CRDL due to sample matrix effects; reduced volumes were analyzed based on an elevated screen results. The detected activities exceed the achieved MDAs. The LCS, batch blank, samples and sample duplicate (B1DTH5) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006

The LCS, batch blank, samples and sample duplicate (B1DTX3) results are within contractual requirements.

Gamma Spectroscopy

Gamma Spec (LL) by method RICH-RC-5017:

The LCS, batch blank, samples and sample duplicate (B1DT65) results are within contractual requirements.

Iodine-129 (LL) by method RICH-RC-5025

The LCS, batch blank, samples and sample duplicate (B1DMT9) results are within contractual requirements.

Liquid Scintillation Counting

Technetium-99 by TEVA method RICH-RC-5065:

The LCS, batch blank, samples, sample duplicate (B1DTD2), and sample matrix spike (B1DTH7) results are within contractual requirements.

Tritium by method RICH-RC-5007:

The LCS, batch blank, samples and sample duplicate (B1DRW8) results are within contractual requirements.

Total Uranium

Total Uranium by method RICH-RC-5058:

The first batch for this analysis failed to achieve an acceptable LCS recovery. The batch was reanalyzed with acceptable QC and those results are accepted. The LCS, batch blank, samples, sample duplicate (B1DTY1), and sample matrix spike (B1DTY6) results are within contractual requirements.

Chemical Analysis

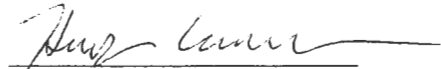
Total Coliform by method 9223

The LCS, batch blank, samples and sample duplicate (B1DT65) results are within contractual requirements.

Pacific Northwest National Laboratories
November 28, 2005

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Reviewed and approved:

A handwritten signature in dark ink, appearing to read "Hans Carman", is written over a horizontal line.

Hans Carman
Project Manager

Drinking Water Method Cross References

DRINKING WATER ASTM METHOD CROSS REFERENCES		
Referenced Method	Isotope(s)	STL Richland's SOP number
EPA 901.1	Cs-134, I-131	RICH-RC-5017
EPA 900.0	Alpha & Beta	RICH-RC-5014
EPA 903.1	Ra-226	RICH-RC-5005
EPA 904.0	Ra-228	RICH-RC-5005
EPA 905.0	Sr89/90	RICH-RC-5006
ASTM D2460	Total Radium	RICH-RC-5027
Standard Method 7500-U-C & ASTM D5174	Uranium	RICH-RC-5058
EPA 906.0	Tritium	RICH-RC-5007
NOTE:		
The Gross Alpha LCS is prepared with Am-241 (unless otherwise specified in the case narrative)		
The Gross Beta LCS is prepared with Sr/Y-90 (unless otherwise specified in the case narrative)		

Uncertainty Estimation

STL Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, $R = \text{constants} * f(x,y,z,...)$. The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/\sqrt{n}), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or STL Richland.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) <i>u_c - Combined Uncertainty.</i>	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, <i>u_c the combined uncertainty</i> . The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or STL Richland "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. $Lc = (1.645 * \text{Sqrt}(2 * (\text{BkgndCnt}/\text{BkgndCntMin})/\text{SCntMin})) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$. For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. $MDC = (4.65 * \text{Sqrt}((\text{BkgndCnt}/\text{BkgndCntMin})/\text{SCntMin}) + 2.71/\text{SCntMin}) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$. For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the Work Order Number.
RER	The equation Replicate Error Ratio = $(S-D)/[\text{sqrt}(\text{TPUs}^2 + \text{TPUd}^2)]$ as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by STL Richland upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

11/28/2005 10:39:37 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

Version: 05

Rpt Nbr: 30659

File Name: h:\Reportdb\edd\Fead\VRad\W04769.Edd, h:\Reportdb\edd\Fead\VRad\30659.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HK1L310	B1DP28		MW6-SBB-A1	I05-053	W04769					09/20/2005 10:31				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5273295	H-3	10028-17-8	2.85E+04	pCi/L	5.7E+02	1.3E+03		3.25E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/29/200 05:16	I
5273293	BETA	12587-47-2	1.79E+03	pCi/L	1.4E+01	2.8E+02		2.04E+00	100.0	9310_ALPHABETA	2.018E-01	L	11/03/200 18:40	I
5273298	SR-90	10098-97-2	1.07E+03	pCi/L	7.0E+00	1.7E+02		4.53E-01	78.1	SRISO SEP PRE	1.0002E+00	L	11/06/200 12:34	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HK1MJ10	B1DP85		MW6-SBB-A1	I05-053	W04769					09/20/2005 12:16				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5273295	H-3	10028-17-8	1.73E+04	pCi/L	4.5E+02	8.7E+02		3.26E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/29/200 06:38	I
5273267	ALPHA	12587-46-1	9.47E-01	pCi/L	7.1E-01	7.4E-01	U	1.09E+00	100.0	9310_ALPHABETA	2.006E-01	L	11/04/200 17:19	I
5273293	BETA	12587-47-2	6.77E+00	pCi/L	1.2E+00	1.5E+00		1.80E+00	100.0	9310_ALPHABETA	2.019E-01	L	11/03/200 18:40	I
5273300	BE-7	13966-02-4	2.30E+01	pCi/L	2.9E+01	2.9E+01	U	5.74E+01		GAMMALL_GS	1.956E+00	L	11/02/200 15:40	I
5273300	CO-60	10198-40-0	-7.77E-01	pCi/L	2.9E+00	2.9E+00	U	5.22E+00		GAMMALL_GS	1.956E+00	L	11/02/200 15:40	I
5273300	CS-134	13967-70-9	1.46E-01	pCi/L	2.8E+00	2.8E+00	U	5.19E+00		GAMMALL_GS	1.956E+00	L	11/02/200 15:40	I
5273300	CS-137	10045-97-3	-3.17E+00	pCi/L	2.2E+00	2.2E+00	U	3.07E+00		GAMMALL_GS	1.956E+00	L	11/02/200 15:40	I
5273300	EU-152	14683-23-9	-3.99E-02	pCi/L	5.8E+00	5.8E+00	U	1.04E+01		GAMMALL_GS	1.956E+00	L	11/02/200 15:40	I
5273300	EU-154	15585-10-1	3.30E+00	pCi/L	7.7E+00	7.7E+00	U	1.59E+01		GAMMALL_GS	1.956E+00	L	11/02/200 15:40	I
5273300	EU-155	14391-16-3	2.04E+00	pCi/L	4.2E+00	4.2E+00	U	7.74E+00		GAMMALL_GS	1.956E+00	L	11/02/200 15:40	I
5273300	K-40	13966-00-2	3.33E+01	pCi/L	7.0E+01	7.0E+01	U	5.29E+01		GAMMALL_GS	1.956E+00	L	11/02/200 15:40	I
5273300	RU-106	13967-48-1	-6.23E-02	pCi/L	2.2E+01	2.2E+01	U	4.08E+01		GAMMALL_GS	1.956E+00	L	11/02/200 15:40	I
5273300	SB-125	14234-35-6	-1.58E+00	pCi/L	6.4E+00	6.4E+00	U	1.12E+01		GAMMALL_GS	1.956E+00	L	11/02/200 15:40	I
5273298	SR-90	10098-97-2	1.56E-01	pCi/L	1.9E-01	2.4E-01	U	5.04E-01	69.7	SRISO SEP PRE	1.0004E+00	L	11/06/200 12:34	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HK64110	B1DTH7		MW6-SBB-A1	W05-009	W04769					09/22/2005 13:04				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5273266	TC-99	14133-76-7	1.48E+01	pCi/L	5.0E+00	7.0E+00		1.09E+01	100.0	TC99 ETVDSK LS	1.252E-01	L	11/03/200 05:06	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HK65410	B1DT91		MW6-SBB-A1	W05-009	W04769					09/22/2005 11:59

STL Richland

rptFeadRadSummaryEdd v3.48

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

11/28/2005 10:39:38 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

Version: 05

Rpt Nbr: 30659

File Name: h:\Reportdb\edd\Fead\Rad\W04769.Edd, h:\Reportdb\edd\Fead\Rad\30659.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5273266	TC-99	14133-76-7	9.20E+02	pCi/L	1.7E+01	6.0E+01		1.02E+01	100.0	TC99_ETVDSK_LS	1.234E-01	L	11/03/200 10:17	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HK65420	B1DT91		MW6-SBB-A1	W05-009	W04769					09/22/2005 11:59

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5321304	Uranium	7440-61-1	4.80E+00	ug/L	4.9E-01	4.9E-01		9.36E-02		UTOT_KPA	2.24E-02	ML	11/25/200 11:17	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HK65D10	B1DTH0		MW6-SBB-A1	W05-009	W04769					09/22/2005 10:06

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5273266	TC-99	14133-76-7	8.10E+01	pCi/L	6.9E+00	1.1E+01		1.13E+01	100.0	TC99_ETVDSK_LS	1.215E-01	L	11/03/200 07:10	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HK65H10	B1DTH5		MW6-SBB-A1	W05-009	W04769					09/22/2005 08:25

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5273295	H-3	10028-17-8	2.54E+04	pCi/L	5.5E+02	1.2E+03		3.29E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/29/200 08:00	I
5273267	ALPHA	12587-46-1	1.57E+00	pCi/L	8.9E-01	9.4E-01		1.02E+00	100.0	9310_ALPHABETA	1.446E-01	L	11/04/200 17:19	I
5273293	BETA	12587-47-2	4.06E+03	pCi/L	2.3E+01	6.3E+02		2.26E+00	100.0	9310_ALPHABETA	1.696E-01	L	11/03/200 18:40	I
5273266	TC-99	14133-76-7	1.85E+04	pCi/L	7.5E+01	1.1E+03		1.08E+01	100.0	TC99_ETVDSK_LS	1.267E-01	L	11/03/200 08:13	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HK65H20	B1DTH5		MW6-SBB-A1	W05-009	W04769					09/22/2005 08:25

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5321304	Uranium	7440-61-1	4.65E+00	ug/L	4.8E-01	4.8E-01		8.55E-02		UTOT_KPA	2.45E-02	ML	11/25/200 11:03	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HK65R10	B1DTF5		MW6-SBB-A1	W05-009	W04769					09/22/2005 09:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5273295	H-3	10028-17-8	2.99E+04	pCi/L	5.9E+02	1.4E+03		3.28E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/29/200 09:21	I
5273266	TC-99	14133-76-7	8.23E+03	pCi/L	5.1E+01	4.9E+02		1.11E+01	100.0	TC99_ETVDSK_LS	1.226E-01	L	11/03/200 09:15	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HK65R20	B1DTF5		MW6-SBB-A1	W05-009	W04769					09/22/2005 09:00

STL Richland

rptFeadRadSummaryEdd v3.48

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

11/28/2005 10:39:38 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

Version: 05

Rpt Nbr: 30659

File Name: h:\Reportdb\edd\Fead\VRad\W04769.Edd, h:\Reportdb\edd\Fead\VRad\30659.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5321304	Uranium	7440-61-1	4.63E+00	ug/L	4.7E-01	4.7E-01		8.88E-02		UTOT_KPA	2.36E-02	ML	11/25/200 11:14	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*	Distilled Volume	Sample On Date:	Collection Date:
9HK66R10	B1DTX3		MW6-SBB-A1	I05-054	W04769					09/22/2005 10:06

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5273295	H-3	10028-17-8	1.36E+04	pCi/L	4.1E+02	7.2E+02		3.27E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/29/200 10:43	I
5273296	I-129L	15046-84-1	7.60E-02	pCi/L	1.4E-01	1.4E-01	U	2.70E-01	102.2	I129LL_SEP_LEPS	3.94E+00	L	11/02/200 12:05	I
5273298	SR-90	10098-97-2	3.16E-03	pCi/L	2.4E-02	2.3E-01	U	5.08E-01	70.5	SRISO_SEP_PRE	1.001E+00	L	11/06/200 12:34	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*	Distilled Volume	Sample On Date:	Collection Date:
9HK66R20	B1DTX3		MW6-SBB-A1	I05-054	W04769					09/22/2005 10:06

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5321304	Uranium	7440-61-1	5.88E+00	ug/L	6.0E-01	6.0E-01		7.18E-02		UTOT_KPA	2.92E-02	ML	11/25/200 11:20	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*	Distilled Volume	Sample On Date:	Collection Date:
9HK69210	B1DT57		MW6-SBB-A1	W05-009	W04769					09/22/2005 08:59

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5273293	BETA	12587-47-2	2.28E+01	pCi/L	2.8E+00	4.8E+00		3.59E+00	100.0	9310_ALPHABETA	1.008E-01	L	11/04/200 15:40	I
5273300	BE-7	13966-02-4	-1.02E+01	pCi/L	2.5E+01	2.5E+01	U	4.22E+01		GAMMALL_GS	1.9976E+00	L	11/02/200 15:41	I
5273300	CO-60	10198-40-0	1.32E+00	pCi/L	2.7E+00	2.7E+00	U	5.21E+00		GAMMALL_GS	1.9976E+00	L	11/02/200 15:41	I
5273300	CS-134	13967-70-9	4.52E-01	pCi/L	2.2E+00	2.2E+00	U	4.13E+00		GAMMALL_GS	1.9976E+00	L	11/02/200 15:41	I
5273300	CS-137	10045-97-3	-1.09E-01	pCi/L	2.0E+00	2.0E+00	U	3.58E+00		GAMMALL_GS	1.9976E+00	L	11/02/200 15:41	I
5273300	EU-152	14683-23-9	3.72E+00	pCi/L	6.0E+00	6.0E+00	U	1.05E+01		GAMMALL_GS	1.9976E+00	L	11/02/200 15:41	I
5273300	EU-154	15585-10-1	5.27E+00	pCi/L	6.8E+00	6.8E+00	U	1.39E+01		GAMMALL_GS	1.9976E+00	L	11/02/200 15:41	I
5273300	EU-155	14391-16-3	-3.15E+00	pCi/L	5.8E+00	5.8E+00	U	9.53E+00		GAMMALL_GS	1.9976E+00	L	11/02/200 15:41	I
5273300	K-40	13966-00-2	7.11E+01	pCi/L	7.2E+01	7.2E+01	U	4.62E+01		GAMMALL_GS	1.9976E+00	L	11/02/200 15:41	I
5273300	RU-106	13967-48-1	2.16E+00	pCi/L	1.8E+01	1.8E+01	U	3.35E+01		GAMMALL_GS	1.9976E+00	L	11/02/200 15:41	I
5273300	SB-125	14234-35-6	2.92E+00	pCi/L	5.5E+00	5.5E+00	U	1.02E+01		GAMMALL_GS	1.9976E+00	L	11/02/200 15:41	I
5273266	TC-99	14133-76-7	3.02E+01	pCi/L	5.1E+00	7.7E+00		9.43E+00	100.0	TC99_ETVDSK_LS	1.241E-01	L	11/03/200 12:22	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*	Distilled Volume	Sample On Date:	Collection Date:
9HK69220	B1DT57		MW6-SBB-A1	W05-009	W04769					09/22/2005 08:59

STL Richland

rptFeadRadSummaryEdd v3.48

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

11/28/2005 10:39:38 AM

STL Richland Report

Lab Code: STLR

FormNbr: R

FormatType: FEAD

Version: 05

Rpt Nbr: 30659

File Name: h:\Reportdb\edd\Fead\Rad\W04769.Edd, h:\Reportdb\edd\Fead\Rad\30659.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5321304	Uranium	7440-61-1	2.95E+00	ug/L	3.0E-01	3.0E-01		9.36E-02		UTOT_KPA	2.24E-02	ML	11/25/200 11:27	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HK69R10	B1DT65		MW6-SBB-A1	W05-009	W04769					09/22/2005 10:16

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5273293	BETA	12587-47-2	3.78E+01	pCi/L	3.8E+00	6.9E+00		4.66E+00	100.0	9310_ALPHABETA	8.38E-02	L	11/04/200 15:40	I
5273300	BE-7	13966-02-4	4.20E+00	pCi/L	2.4E+01	2.4E+01	U	4.50E+01		GAMMALL_GS	1.9828E+00	L	11/02/200 15:40	I
5273300	CO-60	10198-40-0	2.27E+00	pCi/L	2.3E+00	2.3E+00	U	5.31E+00		GAMMALL_GS	1.9828E+00	L	11/02/200 15:40	I
5273300	CS-134	13967-70-9	1.03E+00	pCi/L	1.8E+00	1.8E+00	U	3.86E+00		GAMMALL_GS	1.9828E+00	L	11/02/200 15:40	I
5273300	CS-137	10045-97-3	-2.89E-02	pCi/L	2.1E+00	2.1E+00	U	3.86E+00		GAMMALL_GS	1.9828E+00	L	11/02/200 15:40	I
5273300	EU-152	14683-23-9	1.88E+00	pCi/L	4.9E+00	4.9E+00	U	9.23E+00		GAMMALL_GS	1.9828E+00	L	11/02/200 15:40	I
5273300	EU-154	15585-10-1	4.30E-01	pCi/L	4.8E+00	4.8E+00	U	1.03E+01		GAMMALL_GS	1.9828E+00	L	11/02/200 15:40	I
5273300	EU-155	14391-16-3	1.48E+00	pCi/L	3.4E+00	3.4E+00	U	6.38E+00		GAMMALL_GS	1.9828E+00	L	11/02/200 15:40	I
5273300	K-40	13966-00-2	2.60E+01	pCi/L	3.3E+01	3.3E+01	U	7.52E+01		GAMMALL_GS	1.9828E+00	L	11/02/200 15:40	I
5273300	RU-106	13967-48-1	-1.02E+01	pCi/L	1.8E+01	1.8E+01	U	3.08E+01		GAMMALL_GS	1.9828E+00	L	11/02/200 15:40	I
5273300	SB-125	14234-35-6	3.00E+00	pCi/L	4.6E+00	4.6E+00	U	9.11E+00		GAMMALL_GS	1.9828E+00	L	11/02/200 15:40	I
5273266	TC-99	14133-76-7	7.99E+01	pCi/L	6.6E+00	1.1E+01		1.07E+01	100.0	TC99_ETVDSK_LS	1.244E-01	L	11/03/200 11:20	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HK69R20	B1DT65		MW6-SBB-A1	W05-009	W04769					09/22/2005 10:16

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5321304	Uranium	7440-61-1	3.20E+00	ug/L	3.3E-01	3.3E-01		7.70E-02		UTOT_KPA	2.72E-02	ML	11/25/200 11:24	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HLDCC10	B1DTD2		MW6-SBB-A1	W05-009	W04769					09/23/2005 12:03

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5273295	H-3	10028-17-8	2.18E+04	pCi/L	5.1E+02	1.1E+03		3.28E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/29/200 12:05	I
5273266	TC-99	14133-76-7	7.04E+01	pCi/L	6.4E+00	1.0E+01		1.08E+01	100.0	TC99_ETVDSK_LS	1.259E-01	L	11/03/200 13:25	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HLDCC20	B1DTD2		MW6-SBB-A1	W05-009	W04769					09/23/2005 12:03

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5321304	Uranium	7440-61-1	2.54E+00	ug/L	2.6E-01	2.6E-01		8.77E-02		UTOT_KPA	2.39E-02	ML	11/25/200 11:30	I

STL Richland

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

rptFeadRadSummaryEdd v3.48

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

11/28/2005 10:39:38 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

Version: 05

Rpt Nbr: 30659

File Name: h:\Reportdb\edd\Fea\I\Rad\W04769.Edd, h:\Reportdb\edd\Fea\I\Rad\30659.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HLDCF10	B1DTD7		MW6-SBB-A1	W05-009	W04769					09/23/2005 08:45				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5273266	TC-99	14133-76-7	2.77E+02	pCi/L	1.0E+01	2.2E+01		1.06E+01	100.0	TC99_ETVDSK_LS	1.259E-01	L	11/03/200 15:29	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HLDCF20	B1DTD7		MW6-SBB-A1	W05-009	W04769					09/23/2005 08:45				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5321304	Uranium	7440-61-1	6.43E+00	ug/L	6.6E-01	6.6E-01		8.19E-02		UTOT_KPA	2.56E-02	ML	11/25/200 11:33	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HLDCG10	B1DTD8		MW6-SBB-A1	W05-009	W04769					09/23/2005 07:15				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5273266	TC-99	14133-76-7	-6.72E-01	pCi/L	4.5E+00	6.1E+00	U	1.10E+01	100.0	TC99_ETVDSK_LS	1.25E-01	L	11/03/200 17:34	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HLDCG20	B1DTD8		MW6-SBB-A1	W05-009	W04769					09/23/2005 07:15				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5321304	Uranium	7440-61-1	-1.69E-02	ug/L	2.1E-03	2.1E-03	U	8.06E-02		UTOT_KPA	2.60E-02	ML	11/25/200 11:36	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HLDCH10	B1DTY1		MW6-SBB-A1	I05-054	W04769					09/23/2005 12:56				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5273295	H-3	10028-17-8	3.35E+04	pCi/L	6.2E+02	1.5E+03		3.28E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/29/200 13:26	I
5273296	I-129L	15046-84-1	1.16E-01	pCi/L	1.2E-01	1.2E-01	U	2.49E-01	102.7	I129LL_SEP_LEPS	3.9033E+00	L	11/02/200 12:06	I
5273298	SR-90	10098-97-2	6.53E-02	pCi/L	2.0E-01	2.2E-01	U	4.74E-01	72.5	SRISO_SEP_PRE	1.0005E+00	L	11/06/200 12:29	I
5273266	TC-99	14133-76-7	3.66E+02	pCi/L	1.1E+01	2.7E+01		9.32E+00	100.0	TC99_ETVDSK_LS	1.275E-01	L	11/03/200 18:36	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HLDCH20	B1DTY1		MW6-SBB-A1	I05-054	W04769					09/23/2005 12:56				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5321304	Uranium	7440-61-1	4.60E+00	ug/L	4.7E-01	4.7E-01		8.62E-02		UTOT_KPA	2.43E-02	ML	11/25/200 12:46	I

STL Richland

rptFeaRadSummaryEdd v3.48

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

11/28/2005 10:39:38 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 30659 File Name: h:\Reportdb\edd\Fead\VRad\W04769.Edd, h:\Reportdb\edd\Fead\VRad\30659.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HLDCJ10	B1DTY6		MW6-SBB-A1	I05-054	W04769					09/23/2005 10:21				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5273295	H-3	10028-17-8	2.95E+04	pCi/L	5.9E+02	1.4E+03		3.32E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/29/200 14:48	I
5273296	I-129L	15046-84-1	2.24E-01	pCi/L	1.6E-01	1.6E-01	U	3.38E-01	101.4	I129LL_SEP_LEPS	3.9226E+00	L	11/02/200 13:49	I
5273298	SR-90	10098-97-2	-9.65E-01	pCi/L	6.9E-01	7.4E-01	U	1.85E+00	72.8	SRISO_SEP_PRE	2.80E-01	L	11/06/200 12:30	I
5273266	TC-99	14133-76-7	1.28E+04	pCi/L	6.3E+01	7.6E+02		1.11E+01	100.0	TC99_ETVDSK_LS	1.237E-01	L	11/03/200 19:39	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HLDCJ30	B1DTY6		MW6-SBB-A1	I05-054	W04769					09/23/2005 10:21				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5321304	Uranium	7440-61-1	1.55E+00	ug/L	1.6E-01	1.6E-01		8.77E-02		UTOT_KPA	2.39E-02	ML	11/25/200 12:53	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HLDCJ10	B1DTC4		MW6-SBB-A1	W05-009	W04769					09/23/2005 12:56				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5273266	TC-99	14133-76-7	2.06E+00	pCi/L	4.6E+00	6.3E+00	U	1.09E+01	100.0	TC99_ETVDSK_LS	1.256E-01	L	11/03/200 20:41	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HLDCJ20	B1DTC4		MW6-SBB-A1	W05-009	W04769					09/23/2005 12:56				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5321304	Uranium	7440-61-1	4.76E+00	ug/L	4.9E-01	4.9E-01		7.82E-02		UTOT_KPA	2.68E-02	ML	11/25/200 13:00	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HLDCM10	B1DRW4		MW6-SBB-A1	W05-009	W04769					09/23/2005 10:50				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5273295	H-3	10028-17-8	2.19E+01	pCi/L	1.4E+02	1.5E+02	U	3.30E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/29/200 20:15	I
5273267	ALPHA	12587-46-1	1.41E+00	pCi/L	8.1E-01	8.6E-01		1.01E+00	100.0	9310_ALPHABETA	1.969E-01	L	11/04/200 17:19	I
5273293	BETA	12587-47-2	5.03E+00	pCi/L	1.7E+00	1.9E+00		2.95E+00	100.0	9310_ALPHABETA	1.32E-01	L	11/04/200 15:40	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HLDCN10	B1DRW8		MW6-SBB-A1	W05-009	W04769					09/23/2005 08:59				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5273295	H-3	10028-17-8	-1.06E+02	pCi/L	1.3E+02	1.4E+02	U	3.30E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/29/200 21:36	I

STL Richland

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

rptFeadRadSummaryEdd v3.48

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

11/28/2005 10:39:38 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 30659 File Name: h:\Reportdb\edd\Fead\Rad\W04769.Edd, h:\Reportdb\edd\Fead\Rad\30659.Edd

5273267	ALPHA	12587-46-1	8.87E-01	pCi/L	6.5E-01	6.8E-01	U	9.83E-01	100.0	9310_ALPHABETA	1.994E-01	L	11/04/200	17:19	I
5273293	BETA	12587-47-2	5.84E+00	pCi/L	1.2E+00	1.5E+00		1.94E+00	100.0	9310_ALPHABETA	1.94E-01	L	11/04/200	15:40	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:					
9HLDPC10	B1DMV7		MW6-SBB-A1	A05-013	W04769					09/23/2005 10:50					
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
5273296	I-129L	15046-84-1	-7.11E-02	pCi/L	1.4E-01	1.4E-01	U	2.49E-01	103.0	I129LL_SEP_LEPS	3.90E+00	L	11/02/200 13:50	I	
5273266	TC-99	14133-76-7	5.51E+00	pCi/L	4.7E+00	6.5E+00	U	1.08E+01	100.0	TC99_ETVDSK_LS	1.253E-01	L	11/03/200 21:43	I	
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:					
9HLDPC20	B1DMV7		MW6-SBB-A1	A05-013	W04769					09/23/2005 10:50					
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
5321304	Uranium	7440-61-1	6.15E-01	ug/L	6.8E-02	6.8E-02		8.96E-02		UTOT_KPA	2.34E-02	ML	11/25/200 13:03	I	
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:					
9HLDCT10	B1DMT9		MW6-SBB-A1	A05-013	W04769					09/23/2005 08:59					
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
5273296	I-129L	15046-84-1	6.60E-02	pCi/L	1.4E-01	1.4E-01	U	2.65E-01	103.5	I129LL_SEP_LEPS	3.90E+00	L	11/02/200 15:50	I	
5273266	TC-99	14133-76-7	-1.59E+00	pCi/L	4.3E+00	6.0E+00	U	1.02E+01	100.0	TC99_ETVDSK_LS	1.252E-01	L	11/03/200 22:46	I	
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:					
9HLDCT20	B1DMT9		MW6-SBB-A1	A05-013	W04769					09/23/2005 08:59					
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
5321304	Uranium	7440-61-1	1.10E+00	ug/L	1.1E-01	1.1E-01		8.19E-02		UTOT_KPA	2.56E-02	ML	11/25/200 13:06	I	

STL Richland

rptFeadRadSummaryEdd v3.48

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, November 28, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W04769.Edd, h:\Reportdb\edd\Fead\Rad\30659.Edd

Lab Sample Id: HLQ001AB

Sdg/Rept Nbr: W04769

30659

Collection Date: 09/23/2005 12:03

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 09/23/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5273266	TC-99	-1.19E-02	pCi/L	6.0E+00	U	1.05E+01	100.0		TC99_ETVDSK	1.29E-01	11/03/2005				D
BLK	14133-76-7			4.4E+00						L	23:48				

Monday, November 28, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04769.Edd, h:\Reportdb\edd\FeadIV\Rad\30659.Edd

Lab Sample Id: HLQ1F1AB

Sdg/Rept Nbr: W04769 30659

Collection Date: 09/23/2005 10:50

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 09/23/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5273267	ALPHA	1.12E-02	pCi/L	2.4E-01	U	6.60E-01	100.0		9310_ALPHAB	2.032E-01	11/04/2005				D
BLK	12587-46-1			2.4E-01						L	20:18				

Monday, November 28, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W04769.Edd, h:\Reportdb\edd\Fead\Rad\30659.Edd

Lab Sample Id: HLQ311AB

Sdg/Rept Nbr: W04769

30659

Collection Date: 09/23/2005 08:59

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 09/23/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5273295	H-3	3.70E+01	pCi/L	1.5E+02	U	3.24E+02	100.0		906.0_H3_LSC	5.00E-03	10/29/2005				D
BLK	10028-17-8			1.4E+02							02:33				

Monday, November 28, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\W04769.Edd, h:\Reportdb\edd\Fead\W04769.Edd

Lab Sample Id: HLQ311DX

Sdg/Rept Nbr: W04769

30659

Collection Date: 09/23/2005 08:59

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 09/23/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5273295 BLK	H-3 10028-17-8	7.70E+01	pCi/L	1.5E+02 1.4E+02	U	3.28E+02	100.0		906.0_H3_LSC	5.00E-03	10/29/2005 17:31				D

Monday, November 28, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\I\Rad\W04769.Edd, h:\Reportdb\ledd\Fead\I\Rad\30659.Edd

Lab Sample Id: HLQ3R1AB

Sdg/Rept Nbr: W04769

30659

Collection Date: 09/22/2005 08:25

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 09/22/2005

SAF Nbr		Contract Nbr		Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume		File Id	FSuffix	RTyp		
		MW6-SBB-A19981										CA	H		
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5273293	BETA	2.08E+00	pCi/L	1.0E+00		1.75E+00	100.0		9310_ALPHAB	1.909E-01	11/04/2005				D
BLK	12587-47-2			9.7E-01						L	15:40				

Monday, November 28, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W04769.Edd, h:\Reportdb\edd\Fead\I\Rad\30659.Edd

Lab Sample Id: HLQ4E1AB

Sdg/Rept Nbr: W04769

30659

Collection Date: 09/23/2005 08:59

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 09/23/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5273296	I-129L	-5.98E-02	pCi/L	1.5E-01	U	2.55E-01	99.5		I129LL_SEP_L	3.8353E+00	11/02/2005				D
BLK	15046-84-1			1.5E-01						L	17:50				

Monday, November 28, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04769.Edd, h:\Reportdb\edd\FeadIV\Rad\30659.Edd

Lab Sample Id: HLQ4K1AB

Sdg/Rept Nbr: W04769

30659

Collection Date: 09/22/2005 10:06

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 09/22/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5273298	SR-90	-5.83E-02	pCi/L	2.4E-01	U	5.57E-01	66.6		SRISO_SEP_P	1.00E+00	11/06/2005				D
BLK	10098-97-2			2.2E-01						L	12:30				

Monday, November 28, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W04769.Edd, h:\Reportdb\edd\Fead\I\Rad\30659.Edd

Lab Sample Id: HLQ4M1AB

Sdg/Rept Nbr: W04769

30659

Collection Date: 09/22/2005 10:16

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 09/22/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType					
	MW6-SBB-A19981								CG	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5273300 BLK	BE-7 13966-02-4	3.26E+01	pCi/L	2.6E+01 2.6E+01	U	5.10E+01			GAMMALL_GS	1.9943E+00 L	11/02/2005 19:20				D
5273300 BLK	CO-60 10198-40-0	-2.13E+00	pCi/L	2.6E+00 2.6E+00	U	4.17E+00			GAMMALL_GS	1.9943E+00 L	11/02/2005 19:20				D
5273300 BLK	CS-134 13967-70-9	-1.41E+00	pCi/L	2.5E+00 2.5E+00	U	4.23E+00			GAMMALL_GS	1.9943E+00 L	11/02/2005 19:20				D
5273300 BLK	CS-137 10045-97-3	1.80E-01	pCi/L	2.1E+00 2.1E+00	U	3.88E+00			GAMMALL_GS	1.9943E+00 L	11/02/2005 19:20				D
5273300 BLK	EU-152 14683-23-9	3.21E+00	pCi/L	5.5E+00 5.5E+00	U	9.73E+00			GAMMALL_GS	1.9943E+00 L	11/02/2005 19:20				D
5273300 BLK	EU-154 15585-10-1	5.29E+00	pCi/L	6.7E+00 6.7E+00	U	1.37E+01			GAMMALL_GS	1.9943E+00 L	11/02/2005 19:20				D
5273300 BLK	EU-155 14391-16-3	5.65E-01	pCi/L	5.5E+00 5.5E+00	U	9.47E+00			GAMMALL_GS	1.9943E+00 L	11/02/2005 19:20				D
5273300 BLK	K-40 13966-00-2	-4.85E+00	pCi/L	6.4E+01 6.4E+01	U	1.38E+02			GAMMALL_GS	1.9943E+00 L	11/02/2005 19:20				D
5273300 BLK	RU-106 13967-48-1	3.02E+00	pCi/L	1.8E+01 1.8E+01	U	3.27E+01			GAMMALL_GS	1.9943E+00 L	11/02/2005 19:20				D
5273300 BLK	SB-125 14234-35-6	-5.43E-01	pCi/L	5.2E+00 5.2E+00	U	9.22E+00			GAMMALL_GS	1.9943E+00 L	11/02/2005 19:20				D

Monday, November 28, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W04769.Edd, h:\Reportdb\edd\Fead\I\Rad\30659.Edd

Lab Sample Id: HQEMX1AB

Sdg/Rept Nbr: W04769

30659

Collection Date: 09/22/2005 08:25

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 09/22/2005

SAF Nbr		Contract Nbr		Test User		Case Nbr		SAS Nbr		Suffix		Decant		Distilled Volume		File Id		FSuffix		RTyp	
		MW6-SBB-A19981																CI		H	
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ						
5321304	Uranium	-1.00E-02	ug/L	1.7E-03	U	6.87E-02			UTOT_KPA	3.05E-02	11/25/2005				D						
BLK	7440-61-1			1.7E-03						ML	10:50										

Monday, November 28, 2005

STL Richland QC Control Sample Report

Lab Code: STLR

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04769.Edd, h:\Reportdb\edd\FeadIV\Rad\30659.Edd

Lab Sample Id: HLQ311CS

Sdg/Rept Nbr: W04769 30659

Collection Date: 09/23/2005 08:59

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 09/23/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5273295	H-3	2.51E+03	pCi/L	2.6E+02		3.28E+02	100.0	2.81E+03	906.0_H3_LSC	5.00E-03	10/29/2005			70	D
BS	10028-17-8			2.1E+02				89.4		L	03:54			130	

Monday, November 28, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W04769.Edd, h:\Reportdb\edd\Fead\Rad\30659.Edd

Lab Sample Id: HLQ311EM

Sdg/Rept Nbr: W04769

30659

Collection Date: 09/23/2005 08:59

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 09/23/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
Batch #/ Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5273295	H-3	2.85E+03	pCi/L	2.7E+02		3.29E+02	100.0	2.81E+03	906.0_H3_LSC	5.00E-03	10/29/2005			70	D
BS	10028-17-8			2.2E+02				101.6		L	18:53			130	

Monday, November 28, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W04769.Edd, h:\Reportdb\edd\Fead\I\Rad\30659.Edd

Lab Sample Id: HLQ3R1CS

Sdg/Rept Nbr: W04769 30659

Collection Date: 09/22/2005 08:25

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 09/22/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5273293	BETA	2.31E+01	pCi/L	4.0E+00		1.76E+00	100.0	2.32E+01	9310_ALPHAB	1.952E-01	11/04/2005			70	D
BS	12587-47-2			1.7E+00				99.6		L	15:40			130	

Monday, November 28, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\W04769.Edd, h:\Reportdb\edd\Fead\W04769.Edd, h:\Reportdb\edd\Fead\W04769.Edd

Lab Sample Id: HLQ4E1CS

Sdg/Rept Nbr: W04769 30659

Collection Date: 09/23/2005 08:59

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 09/23/2005

SAF Nbr		Contract Nbr		Test User		Case Nbr		SAS Nbr		Suffix		Decant		Distilled Volume		File Id		FSuffix		RTyp	
		MW6-SBB-A19981																CD		H	
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ						
5273296	I-129L	8.58E+00	pCi/L	1.1E+00		3.59E-01	100.8	9.63E+00	I129LL_SEP_L	4.00E+00	11/02/2005			70	D						
BS	15046-84-1			1.1E+00				89.2		L	17:50			130							

Monday, November 28, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\W04769.Edd, h:\Reportdb\edd\Fead\W04769.Edd, h:\Reportdb\edd\Fead\W04769.Edd, h:\Reportdb\edd\Fead\W04769.Edd

Lab Sample Id: HLQ4K1CS

Sdg/Rept Nbr: W04769

30659

Collection Date: 09/22/2005 10:06

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 09/22/2005

SAF Nbr		Contract Nbr		Test User		Case Nbr		SAS Nbr		Suffix		Decant		Distilled Volume		File Id		FSuffix		RTyp	
		MW6-SBB-A19981																CF		H	
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ						
5273298	SR-90	1.48E+01	pCi/L	2.4E+00		5.43E-01	66.2	1.35E+01	SRISO_SEP_P	1.00E+00	11/06/2005			70	D						
BS	10098-97-2			9.3E-01				109.3		L	12:30			130							

Monday, November 28, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04769.Edd, h:\Reportdb\edd\FeadIV\Rad\30659.Edd

Lab Sample Id: HLQ4M1CS

Sdg/Rept Nbr: W04769 30659

Collection Date: 09/22/2005 10:16

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 09/22/2005

SAF Nbr		Contract Nbr		Test User		Case Nbr		SAS Nbr		Suffix		Decant		Distilled Volume		File Id		FSuffix		RTyp	
		MW6-SBB-A19981																CH		H	
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ						
5273300 BS	CO-60 10198-40-0	3.90E+01	pCi/L	9.4E+00 9.4E+00		4.72E+00		3.78E+01 103.0	GAMMALL_GS	1.9627E+00 L	11/02/2005 15:42			70 130	D						
5273300 BS	CS-137 10045-97-3	2.72E+01	pCi/L	6.7E+00 6.7E+00		5.50E+00		2.53E+01 107.6	GAMMALL_GS	1.9627E+00 L	11/02/2005 15:42			70 130	D						
5273300 BS	EU-152 14683-23-9	8.56E+01	pCi/L	1.9E+01 1.9E+01	U	2.81E+01		7.74E+01 110.6	GAMMALL_GS	1.9627E+00 L	11/02/2005 15:42			70 130	D						

Monday, November 28, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\W04769.Edd, h:\Reportdb\edd\Fead\W04769.Edd, h:\Reportdb\edd\Fead\W04769.Edd, h:\Reportdb\edd\Fead\W04769.Edd

Lab Sample Id: HQEMX1CS

Sdg/Rept Nbr: W04769

30659

Collection Date: 09/22/2005 08:25

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 09/22/2005

SAF Nbr		Contract Nbr		Test User		Case Nbr		SAS Nbr		Suffix		Decant		Distilled Volume		File Id		FSuffix		RTyp	
		MW6-SBB-A19981																CJ		H	
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt		Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS		R Typ				
				Uncert	2S										LCL/UCL	UCL					
5321304	Uranium	3.70E+01	ug/L	4.4E+00			8.70E-02		3.75E+01	UTOT_KPA	2.41E-02	11/25/2005				70		D			
BS	7440-61-1			4.4E+00					98.5		ML	10:56				130					

Monday, November 28, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W04769.Edd, h:\Reportdb\edd\Fead\I\Rad\30659.Edd

Lab Sample Id: HQEMX1DS

Sdg/Rept Nbr: W04769

30659

Collection Date: 09/22/2005 08:25

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 09/22/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType					
	MW6-SBB-A19981								CK	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5321304	Uranium	2.99E+00	ug/L	3.1E-01		6.85E-02		2.99E+00	UTOT_KPA	3.06E-02	11/25/2005			70	D
BS	7440-61-1			3.1E-01				99.9		ML	10:59			130	

Monday, November 28, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\W04769.Edd, h:\Reportdb\edd\Fead\W04769.Edd

Lab Sample Id: HK65H1GR

Sdg/Rept Nbr: W04769

30659

Collection Date: 09/22/2005 08:25

Client Id: B1DTH5

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 09/22/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
W05-009	MW6-SBB-A19981														
5273293	BETA	3.88E+03	pCi/L	7.5E+02		2.08E+00	100.0		9310_ALPHAB	1.70E-01	11/03/2005	4.5	0.3		D
DUP	12587-47-2	4.06E+03		2.1E+01						L	18:40	20.0	3		

Monday, November 28, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04769.Edd, h:\Reportdb\edd\FeadIV\Rad\30659.Edd

Lab Sample Id: HK66R1FR

Sdg/Rept Nbr: W04769 30659

Collection Date: 09/22/2005 10:06

Client Id: B1DTX3

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 09/22/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
I05-054	MW6-SBB-A19981								BK	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5273298	SR-90	-1.17E-01	pCi/L	1.8E-01	U	4.44E-01	77.7		SRISO_SEP_P	1.00E+00	11/06/2005	0.0	0.9		D
DUP	10098-97-2	3.16E-03		1.7E-01						L	12:29	20.0	3		

Monday, November 28, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\eddd\Fead\I\Rad\W04769.Edd, h:\Reportdb\eddd\Fead\I\Rad\30659.Edd

Lab Sample Id: HLDCC1ER

Sdg/Rept Nbr: W04769 30659

Collection Date: 09/23/2005 12:03

Client Id: B1DTD2

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 09/23/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
W05-009	MW6-SBB-A19981								BM	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5273266	TC-99	5.54E+01	pCi/L	9.2E+00		9.83E+00	100.0		TC99_ETVDSK	1.261E-01	11/03/2005	23.9	2.3		D
DUP	14133-76-7	7.04E+01		5.8E+00						L	14:27	20.0	3		

Monday, November 28, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04769.Edd, h:\Reportdb\edd\FeadIV\Rad\30659.Edd

Lab Sample Id: HLDCH2GR

Sdg/Rept Nbr: W04769 30659

Collection Date: 09/23/2005 12:56

Client Id: B1DTY1

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 09/23/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
I05-054	MW6-SBB-A19981								BN	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5321304	Uranium	4.60E+00	ug/L	4.7E-01		8.42E-02			UTOT_KPA	2.49E-02	11/25/2005	.0	0.		D
DUP	7440-61-1	4.60E+00		4.7E-01						ML	12:50	20.0	3		

Monday, November 28, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\IVRad\W04769.Edd, h:\Reportdb\edd\Fead\IVRad\30659.Edd

Lab Sample Id: HLDCN1ER

Sdg/Rept Nbr: W04769 30659

Collection Date: 09/23/2005 08:59

Client Id: B1DRW8

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 09/23/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
W05-009	MW6-SBB-A19981														
5273295	H-3	2.48E+01	pCi/L	1.5E+02	U	3.30E+02	100.0		906.0_H3_LSC	5.00E-03	10/29/2005	0.0	1.2		D
DUP	10028-17-8	-1.06E+02		1.4E+02						L	22:17	20.0	3		

Monday, November 28, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04769.Edd, h:\Reportdb\edd\FeadIV\Rad\30659.Edd

Lab Sample Id: HLDCT1ER

Sdg/Rept Nbr: W04769 30659

Collection Date: 09/23/2005 08:59

Client Id: B1DMT9

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 09/23/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
A05-013	MW6-SBB-A19981														
5273296 DUP	I-129L 15046-84-1	-2.38E-02 6.60E-02	pCi/L	1.2E-01 1.2E-01	U	2.20E-01	103.5		I129LL_SEP_L	3.8161E+00 L	11/02/2005 15:50	425.8 20.0	1.1 3		D

Monday, November 28, 2005

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W04769.Edd, h:\Reportdb\edd\Fead\I\Rad\30659.Edd

Lab Sample Id: HK6411CW

Sdg/Rept Nbr: W04769 30659

Collection Date: 09/22/2005 13:04

Client Id: B1DTH7

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: MS

Received Date: 09/22/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
W05-009	MW6-SBB-A19981								BI	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5273266 MS	TC-99 14133-76-7	3.08E+03	pCi/L	1.9E+02 3.1E+01		1.10E+01	100.0	3.61E+03 85.3	TC99_ETVDSK	1.248E-01 L	11/03/2005 06:08			60 140	D

Monday, November 28, 2005

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W04769.Edd, h:\Reportdb\edd\Fead\I\Rad\30659.Edd

Lab Sample Id: HLDCJ3GW

Sdg/Rept Nbr: W04769

30659

Collection Date: 09/23/2005 10:21

Client Id: B1DTY6

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: MS

Received Date: 09/23/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ ML	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
I05-054	MW6-SBB-A19981													BO	H
5321304	Uranium	3.82E+01	ug/L	4.7E+00		9.11E-02		3.92E+01	UTOT_KPA	2.30E-02	11/25/2005			60	D
MS	7440-61-1			4.7E+00				97.5		ML	12:56			140	

RQC050

Severn Trent Laboratories, Inc.
WET CHEM BATCHSHEETRun Date: 11/22/05
Time: 11:27:01

STL Richland

PRODUCTION FIGURES - WET CHEM

TOTAL NUMBER	SAMPLE NUMBER	QC	RE-RUN MATRIX	RE-RUN OTHER	MISC NUMBER	TOTAL HOURS	EXPANDED DELIVERABLE
-----------------	------------------	----	------------------	-----------------	----------------	----------------	-------------------------

METHOD: IZ COLIFORM BY METHOD 9223

QC BATCH #: 5273304

PREP DATE: 9/30/05

COMP DATE: 9/30/05

USER: KENITZEP

INITIALS:

PREP DmcANAL Dmc

DATA ENTRY:

INITIALS _____

DATE _____

Work Order	Lab Number	Structured Analysis	Exp. Del.	Analysis Date	Sample ID:	#	col
HK69R-1-AA	J-5I220359-001	XX I 88 IZ 5I	E	9-22-05	B1DT65		0
HK69R-1-AH	J-5I220359-001-X	XX I 88 IZ 5I	E		B1DT65 DUP		0
HK692-1-AA	J-5I220359-002	XX I 88 IZ 5I	E		B1DT57		0
HLQ4T-1-AA	J-5I300000-304-B	XX I 88 IZ 5I			INTRA-LAB BLANK		0
HLQ4T-1-AC	J-5I300000-304-C	XX I 88 IZ 5I			INTRA-LAB CHECK		16.8

Control Limits

(0-0)

Lot No., Due Date: J5I220345, J5I240202, J5I240204; 11/07/2005
Client, Site: 384868; PGW 615 HANFORD HANFORD
QC Batch No., Method Test: 5273296; RGAMLEPS Gamma by LEPS
SDG, Matrix: W04769; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level Review

Pam Anderson

Date

11-3-05



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5273296

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?			
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review:  Date: 11-25-05

Lot No., Due Date: J5I200383, J5I220359; 11/07/2005
Client, Site: 384868; PGW 615 HANFORD HANFORD
QC Batch No., Method Test: 5273300; RGAMMA Gamma by GER
SDG, Matrix: W04769; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?

Yes No N/A

✓

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?

Yes No N/A

✓

2.2 Are the QC appropriate for the analysis included in the batch?

Yes No N/A

✓

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?

Yes No N/A

✓

2.4 Does the Worksheets include a Tracer Vial label for each sample?

Yes No N/A

✓

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits?

Yes No N/A

✓

3.2 Is the LCS result, yield, and MDA within contract limits?

Yes No N/A

✓

3.3 Are the MS/MSD results, yields, and MDA within contract limits?

Yes No N/A

✓

3.4 Are the duplicate result, yields, and MDAs within contract limits?

Yes No N/A

✓

3.5 Are the sample yields and MDAs within contract limits?

Yes No N/A

✓

4.0 Raw Data

4.1 Were results calculated in the correct units?

Yes No N/A

✓

4.2 Were analysis volumes entered correctly?

Yes No N/A

✓

4.3 Were Yields entered correctly?

Yes No N/A

✓

4.4 Were spectra reviewed/meet contractual requirements?

Yes No N/A

✓

4.5 Were raw counts reviewed for anomalies?

Yes No N/A

✓

5.0 Other

5.1 Are all nonconformances included and noted?

Yes No N/A

✓

5.2 Are all required forms filled out?

Yes No N/A

✓

5.3 Was the correct methodology used?

Yes No N/A

✓

5.4 Was transcription checked?

Yes No N/A

✓

5.5 Were all calculations checked at a minimum frequency?

Yes No N/A

✓

5.6 Are worksheet entries complete and correct?

Yes No N/A

✓

6.0 Comments on any No response:

First Level Review

Pam Anderson

Date

11-3-05



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number:

5273300

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response:

Second Level Review:

[Signature]

Date:

11-29-05

Lot No., Due Date: J5I200383,J5I220336,J5I240203; 11/07/2005
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 5273267; RALPHA-A Alpha by GPC-Am
SDG, Matrix: W04769; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? ☒ Yes ☐ No ☐ N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? ☒ Yes ☐ No ☐ N/A

2.2 Are the QC appropriate for the analysis included in the batch? ☒ Yes ☐ No ☐ N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? ☒ Yes ☐ No ☐ N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? ☒ Yes ☐ No ☐ N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? ☒ Yes ☐ No ☐ N/A

3.2 Is the LCS result, yield, and MDA within contract limits? ☒ Yes ☐ No ☐ N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? ☐ Yes ☐ No ☒ N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? ☒ Yes ☐ No ☐ N/A

3.5 Are the sample yields and MDAs within contract limits? ☒ Yes ☐ No ☐ N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? ☒ Yes ☐ No ☐ N/A

4.2 Were analysis volumes entered correctly? ☒ Yes ☐ No ☐ N/A

4.3 Were Yields entered correctly? ☐ Yes ☐ No ☒ N/A

4.4 Were spectra reviewed/meet contractual requirements? ☒ Yes ☐ No ☐ N/A

4.5 Were raw counts reviewed for anomalies? ☒ Yes ☐ No ☐ N/A

5.0 Other

5.1 Are all nonconformances included and noted? ☐ Yes ☐ No ☒ N/A

5.2 Are all required forms filled out? ☒ Yes ☐ No ☐ N/A

5.3 Was the correct methodology used? ☒ Yes ☐ No ☐ N/A

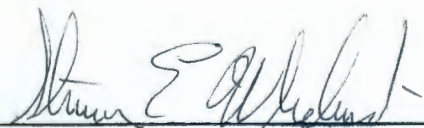
5.4 Was transcription checked? ☒ Yes ☐ No ☐ N/A

5.5 Were all calculations checked at a minimum frequency? ☒ Yes ☐ No ☐ N/A

5.6 Are worksheet entries complete and correct? ☒ Yes ☐ No ☐ N/A

6.0 Comments on any No response:

First Level Review



Date

11/7/05



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5273267

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?		✓	
3. Was the correct methodology used?		✓	
4. Was transcription checked?		✓	
5. Were all calculations checked at a minimum frequency?		✓	
6. Were units checked?		✓	

Comments on any "No" response: _____

Second Level Review: _____

Date: 11-25-05

Lot No., Due Date: J5I200383, J5I220336, J5I220359, J5I240203; 11/07/2005
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 5273293; RBETA-SR Beta by GPC-Sr/Y
SDG, Matrix: W04769; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? ☒ Yes ☐ No ☐ N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? ☒ Yes ☐ No ☐ N/A

2.2 Are the QC appropriate for the analysis included in the batch? ☒ Yes ☐ No ☐ N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? ☒ Yes ☐ No ☐ N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? ☒ Yes ☐ No ☐ N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? ☒ Yes ☐ No ☐ N/A

3.2 Is the LCS result, yield, and MDA within contract limits? ☒ Yes ☐ No ☐ N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? ☒ Yes ☐ No ☒ N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? ☒ Yes ☐ No ☐ N/A

3.5 Are the sample yields and MDAs within contract limits? ☒ Yes ☐ No ☐ N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? ☒ Yes ☐ No ☐ N/A

4.2 Were analysis volumes entered correctly? ☒ Yes ☐ No ☐ N/A

4.3 Were Yields entered correctly? ☒ Yes ☐ No ☒ N/A

4.4 Were spectra reviewed/meet contractual requirements? ☒ Yes ☐ No ☐ N/A

4.5 Were raw counts reviewed for anomalies? ☒ Yes ☐ No ☐ N/A

5.0 Other

5.1 Are all nonconformances included and noted? ☒ Yes ☐ No ☒ N/A

5.2 Are all required forms filled out? ☒ Yes ☐ No ☐ N/A

5.3 Was the correct methodology used? ☒ Yes ☐ No ☐ N/A

5.4 Was transcription checked? ☒ Yes ☐ No ☐ N/A

5.5 Were all calculations checked at a minimum frequency? ☒ Yes ☐ No ☐ N/A

5.6 Are worksheet entries complete and correct? ☒ Yes ☐ No ☐ N/A

6.0 Comments on any No response:

First Level Review



Date

11/7/05



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5-273293

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?		✓	
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: _____

Date: 11-25-05

Lot No., Due Date: J5I200383, J5I220345, J5I240202; 11/07/2005
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 5273298; RSR85907 Sr-85/90 by GPC-7
SDG, Matrix: W04769; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? ☒ Yes ☐ No ☐ N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? ☒ Yes ☐ No ☐ N/A

2.2 Are the QC appropriate for the analysis included in the batch? ☒ Yes ☐ No ☐ N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? ☒ Yes ☐ No ☐ N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? ☒ Yes ☐ No ☐ N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? ☒ Yes ☐ No ☐ N/A

3.2 Is the LCS result, yield, and MDA within contract limits? ☒ Yes ☐ No ☐ N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? ☐ Yes ☐ No ☒ N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? ☒ Yes ☐ No ☐ N/A

3.5 Are the sample yields and MDAs within contract limits? ☒ Yes ☐ No ☐ N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? ☒ Yes ☐ No ☐ N/A

4.2 Were analysis volumes entered correctly? ☒ Yes ☐ No ☐ N/A

4.3 Were Yields entered correctly? ☒ Yes ☐ No ☐ N/A

4.4 Were spectra reviewed/meet contractual requirements? ☒ Yes ☐ No ☐ N/A

4.5 Were raw counts reviewed for anomalies? ☒ Yes ☐ No ☐ N/A

5.0 Other

5.1 Are all nonconformances included and noted? ☐ Yes ☐ No ☒ N/A

5.2 Are all required forms filled out? ☒ Yes ☐ No ☐ N/A

5.3 Was the correct methodology used? ☒ Yes ☐ No ☐ N/A

5.4 Was transcription checked? ☒ Yes ☐ No ☐ N/A

5.5 Were all calculations checked at a minimum frequency? ☒ Yes ☐ No ☐ N/A

5.6 Are worksheet entries complete and correct? ☒ Yes ☐ No ☐ N/A

6.0 Comments on any No response:

First Level Review



Date

11/7/05



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number:

5273298

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?			
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?			
3. Was the correct methodology used?			
4. Was transcription checked?			
5. Were all calculations checked at a minimum frequency?			
6. Were units checked?			

Comments on any "No" response:

Second Level Review:

Kusur

Date:

11-25-04

Lot No., Due Date: J5I220336,J5I220359,J5I240201,J5I240202,J5I240203,J5I240204; 11/07/2005
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 5273266; RTC99 Tc-99 by LSC
SDG, Matrix: W04769; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? ☒ Yes ☐ No ☐ N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? ☒ Yes ☐ No ☐ N/A

2.2 Are the QC appropriate for the analysis included in the batch? ☒ Yes ☐ No ☐ N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? ☒ Yes ☐ No ☐ N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? ☒ Yes ☐ No ☐ N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? ☒ Yes ☐ No ☐ N/A

3.2 Is the LCS result, yield, and MDA within contract limits? ☒ Yes ☐ No ☐ N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? ☒ Yes ☐ No ☐ N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? ☒ Yes ☐ No ☐ N/A

3.5 Are the sample yields and MDAs within contract limits? ☒ Yes ☐ No ☐ N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? ☒ Yes ☐ No ☐ N/A

4.2 Were analysis volumes entered correctly? ☒ Yes ☐ No ☐ N/A

4.3 Were Yields entered correctly? ☒ Yes ☐ No ☐ N/A

4.4 Were spectra reviewed/meet contractual requirements? ☒ Yes ☐ No ☐ N/A

4.5 Were raw counts reviewed for anomalies? ☒ Yes ☐ No ☐ N/A

5.0 Other

5.1 Are all nonconformances included and noted? ☒ Yes ☐ No ☐ N/A

5.2 Are all required forms filled out? ☒ Yes ☐ No ☐ N/A

5.3 Was the correct methodology used? ☒ Yes ☐ No ☐ N/A

5.4 Was transcription checked? ☒ Yes ☐ No ☐ N/A

5.5 Were all calculations checked at a minimum frequency? ☒ Yes ☐ No ☐ N/A

5.6 Are worksheet entries complete and correct? ☒ Yes ☐ No ☐ N/A

6.0 Comments on any No response:

First Level Review

Pam Anderson

Date *11-4-05*



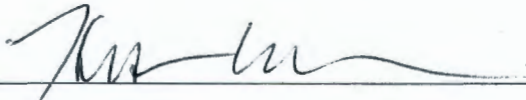
STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5273266

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?	✓		
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?			
3. Was the correct methodology used?			
4. Was transcription checked?			
5. Were all calculations checked at a minimum frequency?			
6. Were units checked?			

Comments on any "No" response: _____

Second Level Review:  Date: 11-25-05

Lot No., Due Date: J5I200383,J5I220336,J5I220345,J5I240201,J5I240202,J5I240203; 11/07/2005
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 5273295; RTRITIUM H-3 by LSC
SDG, Matrix: W04769; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level Review



Date

10/31/05



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5273245

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: _____

Date: 11-29-09

Lot No., Due Date: J5I220336,J5I220345,J5I220359,J5I240201,J5I240202,J5I240203,J5I240204; 11/07/2005
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 5321304; RUNAT UNat by KPA
SDG, Matrix: W04769; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

See NCM.

10 07030

First Level Review

Pam Anderson

Date

11-24-05

SEVERN
TRENT

STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5321304

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?	✓		
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: Reanalysis due to low LCS

Second Level Review: [Signature]

Date: 11-28-05

Clouseau Nonconformance Memo

SEVERN

TRENT

SERVICES

NCM #: **10-07030**

NCM Initiated By: Pam Anderson

Date Opened: 11/26/2005

Date Closed:

Classification: **Anomaly**

Status: **GLREVIEW**

Production Area: Environmental - Sep

Tests: UNat by KPA

Lot #'s (Sample #'s): J5I220336 (3,4,5), J5I220345 (1), J5I220359 (1,2), J5I240201 (1,2,3), J5I240202 (1,2), J5I240203 (1), J5I240204 (1,2), J5K170000 (304),

QC Batches: 5321304

Nonconformance: Other (describe in detail)

Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	11/26/2005	the LCS was out on the first anlysis. A reanalysis was done with good QC. Ranalysis data accepted.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	11/26/2005	The batch was reanalyzed with good QCA.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
			Response		Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position
---------------	-------------	----------

Lot No., Due Date: J5I220359; 11/07/2005
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 5273304;
SDG, Matrix: W04769; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level Review

Pam Anderson

Date 11-22-05

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number:

5273304

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?			✓
3. Are the correct isotopes reported?			✓
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?			✓
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?			✓
3. Was the correct methodology used?			✓
4. Was transcription checked?			✓
5. Were all calculations checked at a minimum frequency?			✓
6. Were units checked?			✓

Comments on any "No" response:

Incubation time and Temp
criteria met

Second Level Review:



Date: 11-25-05

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # I05-053-2
				Page 1 of 1
Collector DURATEK		Contact/Requester Dot Stewart	Telephone No. MSIN FAX 509-376-5056	
SAF No. R. T. SICKLE I05-053		Sampling Origin	Purchase Order/Charge Code	
Project Title CERCLA 100NR2 September 2005		DTS-SAMP H98	Ice Chest No. SML 550 Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt Truck	Bill of Lading/Air Bill No.	
Protocol CERCLA		Priority: 45 Days	Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** **		SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
W09769 J5F200383 Due 110 F05				

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DP28		W	9-20-05	1031	1x1000-mL P	906.0_H3_LSC: Tritium (1) HK123	None
B1DP28		W			1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1DP28		W			1x20-mL P	Activity Scan	None
B1DP28		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2

Relinquished By DURATEK Print Sign R. T. SICKLE Date/Time SEP 20 2005		Received By Jeff Jensen Print Sign JHJ Date/Time SEP 20 2005		Matrix * S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SI = Sludge WI = Wine W = Water LI = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By Date/Time		Received By Date/Time		
Relinquished By Date/Time		Received By Date/Time		
Relinquished By Date/Time		Received By Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time		

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # 105-053-75	
				Page 1 of 1	
Collector DURATEK R.T. SICKLE		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. 105-053		Sampling Origin		Purchase Order/Charge Code	
Project Title CERCLA 100NR2 September 2005		QTS-SAM S H98		Ice Chest No. SML 550 Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt Truck		Bill of Lading/Air Bill No.	
Protocol CERCLA		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** W09769			SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DP85		W	9-20-05	1216	1x1000-mL P	906.0_H3_LSC: Tritium (1) HKIMJ	None
B1DP85		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1DP85		W			1x20-mL P	Activity Scan	None
B1DP85		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	None
B1DP85		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2

DURATEK R.T. SICKLE		Date/Time SEP 20 2005	Received By Jeff Jensen	Date/Time SEP 20 2005	Matrix * S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Date/Time	Received By	Date/Time		
Relinquished By	Date/Time	Received By	Date/Time		
Relinquished By	Date/Time	Received By	Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time			



STL

Sample Check-in List

Date/Time Received: 09 20 05 1400

Client: PuW SDG #: 609769 NA ☐ SAF #: 105-055 NA ☐ 105-053

Work Order Number: J5I200383 Chain of Custody # 105-055-11,8,9

Shipping Container ID: SML550 SANS335 Air Bill # 105-053-75,2,51

1. Custody Seals on shipping container intact? NA ☒ Yes ☐ No ☐
2. Custody Seals dated and signed? NA ☒ Yes ☐ No ☐
3. Chain of Custody record present? Yes ☒ No ☐
4. Cooler temperature: _____ NA ☒ 5. Vermiculite/packing materials is NA ☐ Wet ☐ Dry ☒
6. Number of samples in shipping container: 49
7. Sample holding times exceeded? NA ☒ Yes ☐ No ☐
8. Samples have:
_____ tape _____ hazard labels
☒ custody seals ☒ appropriate samples labels
9. Samples are:
☒ in good condition _____ leaking
_____ broken _____ have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? NA ☐ pH < 2 ☒ pH > 2 ☒ pH > 9 ☐
11. Sample Location, Sample Collector Listed? * Yes ☒ No ☐
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes ☐ No ☒
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [Signature] Date: 09 20 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W05-009-182
	Page 1 of 1	

Collector D.R. BREWINGTON	Contact/Requester Dot Stewart	Telephone No. MSIN FAX 509-376-5056
SAF No. W05-009	Sampling Origin <i>Hanford</i>	Purchase Order/Charge Code
Project Title RCRA September 2005	<i>DTS-SAWS-143</i>	Ice Chest No. <i>SAWS-212</i> Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt Truck	Bill of Lading/Air Bill No.
Protocol RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS ** ** <div style="text-align: center; font-size: 1.2em;"> <i>W04769</i> <i>JSI 220336</i> <i>Due 11 07 05</i> </div>	SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	--

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DTH7		W	<i>9-21-05</i>	<i>1304</i>	1x20-mL P	Activity Scan <div style="text-align: center; font-size: 1.2em;"><i>HK641</i></div>	None
B1DTH7		W	<i>↓</i>	<i>↓</i>	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By D.R. BREWINGTON	Print <i>D.R. Brewington</i>	Sign <i>[Signature]</i>	Date/Time <i>1428</i> SEP 22 2005	Received By Jeff Jensen	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <i>1428</i> SEP 22 2005														
Relinquished By	Date/Time	Received By	Date/Time	<div style="text-align: center; font-size: 1.5em; font-weight: bold;"><100 CPM</div> <table style="width:100%; font-size: 0.8em;"> <tr> <td>S = Soil</td> <td>DS = Drum Solid</td> </tr> <tr> <td>SE = Sediment</td> <td>DL = Drum Liquid</td> </tr> <tr> <td>SO = Solid</td> <td>T = Tissue</td> </tr> <tr> <td>SL = Sludge</td> <td>WI = Wine</td> </tr> <tr> <td>W = Water</td> <td>L = Liquid</td> </tr> <tr> <td>O = Oil</td> <td>V = Vegetation</td> </tr> <tr> <td>A = Air</td> <td>X = Other</td> </tr> </table>				S = Soil	DS = Drum Solid	SE = Sediment	DL = Drum Liquid	SO = Solid	T = Tissue	SL = Sludge	WI = Wine	W = Water	L = Liquid	O = Oil	V = Vegetation	A = Air	X = Other
S = Soil	DS = Drum Solid																				
SE = Sediment	DL = Drum Liquid																				
SO = Solid	T = Tissue																				
SL = Sludge	WI = Wine																				
W = Water	L = Liquid																				
O = Oil	V = Vegetation																				
A = Air	X = Other																				
Relinquished By	Date/Time	Received By	Date/Time																		
Relinquished By	Date/Time	Received By	Date/Time																		
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time															

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # W05-009-154	
				Page 1 of 1	
Collector D.R. BREWINGTON		Contact/Requester Dot Stewart		Telephone No. 509-376-5056 MSIN FAX	
SAF No. W05-009		Sampling Origin <i>Hanford</i>		Purchase Order/Charge Code	
Project Title RCRA September 2005		DTS-SAWS-H93		Ice Chest No. <i>SAWS-212</i> Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt Truck		Bill of Lading/Air Bill No.	
Protocol RCRA		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** **			SPECIAL INSTRUCTIONS		
<i>W04769</i>			Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DTH0		W	<i>9-22-05</i>	<i>1006</i>	1x20-mL P	Activity Scan <i>HK65D</i>	None
B1DTH0		W	<i>↓</i>	<i>↓</i>	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By <i>D.R. Brewington</i> Sign <i>[Signature]</i> Date/Time <i>9/22/2005</i>		Received By <i>Jeff Jensen</i> Print <i>[Signature]</i> Date/Time <i>9/22/2005</i>		<100 CPM Matrix* S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge W = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By _____ Date/Time _____		Received By _____ Date/Time _____		
Relinquished By _____ Date/Time _____		Received By _____ Date/Time _____		
Relinquished By _____ Date/Time _____		Received By _____ Date/Time _____		
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process) _____ Disposed By _____ Date/Time _____		

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # W05-009-160	
				Page 1 of 1	
Collector D.R. BREWINGTON		Contact/Requester Dot Stewart		Telephone No. 509-376-5056 MSIN FAX	
SAF No. W05-009		Sampling Origin <i>Hanford</i>		Purchase Order/Charge Code	
Project Title RCRA September 2005		<i>DTS-SAW-1493</i>		Ice Chest No. <i>SAWS-212</i> Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt Truck		Bill of Lading/Air Bill No.	
Protocol RCRA		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** <i>W04769</i>			SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DTH5		W	<i>9-22-05</i>	<i>0825</i>	1x20-mL P	Activity Scan <i>HK65H</i>	None
B1DTH5		W	<i> </i>	<i> </i>	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1DTH5		W	<i> </i>	<i> </i>	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1DTH5		W	<i> </i>	<i> </i>	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1DTH5		W	<i> </i>	<i> </i>	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By <i>D.R. Brewington</i> <i>SEP 22 2005</i>		Received By <i>Jeff Jensen</i> <i>SEP 22 2005</i>		<100 CPM Matrix * S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time		

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # W05-009-176	
				Page 1 of 1	
Collector D.R. BREWINGTON		Contact/Requester Dot Stewart		Telephone No. 509-376-5056 MSIN FAX	
SAF No. W05-009		Sampling Origin <i>Hanford</i>		Purchase Order/Charge Code	
Project Title RCRA September 2005		<i>DTs - SAW 5-1493</i>		Ice Chest No. <i>SAWS-212</i> Temp. <i>SAWS-210 9-22-05</i>	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt Truck		Bill of Lading/Air Bill No.	
Protocol RCRA		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** **			SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
<i>W04769</i>					

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DTF5		W	<i>9-22-05</i>	<i>0800</i>	1x20-mL P	Activity Scan <i>HK 65R</i>	None
B1DTF5		W	<i>↓</i>	<i>↓</i>	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1DTF5		W	<i>↓</i>	<i>↓</i>	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1DTF5		W	<i>↓</i>	<i>↓</i>	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By <i>D.R. Brewington</i> <small>Print</small> <i>D.R. Brewington</i> <small>Signature</small> <i>SEP 22 2005</i> <small>Date/Time</small> <i>1408</i>		Received By <i>Jeff Jensen</i> <small>Print</small> <i>1409</i> <small>Signature</small> <i>SEP 22 2005</i> <small>Date/Time</small> <i>1425</i>		<100 CPM Matrix * S = Soil DS = Drum Solid SF = Sediment DI = Drum Liquid SO = Solid T = Tissue SI = Sludge WI = Wine W = Water LI = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By <small>Date/Time</small>		Received By <small>Date/Time</small>		
Relinquished By <small>Date/Time</small>		Received By <small>Date/Time</small>		
Relinquished By <small>Date/Time</small>		Received By <small>Date/Time</small>		
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By <small>Date/Time</small>		

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # W05-009-148	
				Page 1 of 1	
Collector D.R. BREWINGTON		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. W05-009		Sampling Origin Hanford		Purchase Order/Charge Code	
Project Title RCRA September 2005		DT8-SAW-1493		Ice Chest No. SAWS-212 Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt Truck		Bill of Lading/Air Bill No.	
Protocol RCRA		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** **			SPECIAL INSTRUCTIONS		
W09769			Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DT91		W	9-22-05	1159	1x20-mL P	Activity Scan HK654	None
B1DT91		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1DT91		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By D.R. BREWINGTON <i>DR Brewington</i> SEP 22 2005		Received By Jeff Jensen <i>JE Jensen</i> SEP 22 2005		<100 GPM	
Relinquished By	Date/Time	Received By	Date/Time	S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SI = Sludge W1 = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other	
Relinquished By	Date/Time	Received By	Date/Time		
Relinquished By	Date/Time	Received By	Date/Time		
Relinquished By		Received By		Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)			
		Disposed By		Date/Time	



STL

Sample Check-in List

Date/Time Received: 09 22 05 14 29

Client: P4W SDG #: W04769 NA [] SAF #: W05-009 NA [] F05-054

Work Order Number: JST220336

Chain of Custody # F05-054-5 W05-009-182, 154
176, 160, 182, 148

Shipping Container ID: SAWS 212

Air Bill # SKS 116106

1. Custody Seals on shipping container intact? NA ☒ Yes [] No []
2. Custody Seals dated and signed? NA ☒ Yes [] No []
3. Chain of Custody record present? Yes ☒ No []
4. Cooler temperature: NA ☒ 5. Vermiculite/packing materials is NA [] Wet [] Dry ☒
6. Number of samples in shipping container: 21
7. Sample holding times exceeded? NA ☒ Yes [] No []
8. Samples have:
 tape hazard labels
 X custody seals X appropriate samples labels
9. Samples are:
 X in good condition leaking
 broken have air bubbles
 (Only for samples requiring head space)
10. Sample pH taken? NA [] pH < 2 ☒ pH > 2 ☒ pH > 9 []
11. Sample Location, Sample Collector Listed? * Yes ☒ No []
 *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [] No ☒
13. Description of anomalies (include sample numbers):

Sample Custodian: JHJ Date: 09 22 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on by Person contacted

[] No action necessary; process as is.

Project Manager Date

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # 105-054-5	
				Page 1 of 1	
Collector D.R. BREWINGTON		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. 105-054		Sampling Origin <i>Haul Road</i>		Purchase Order/Charge Code	
Project Title LTMC & 2UP1-C, SEPTEMBER 2005		<i>DTS-SAWS-H93</i>		Ice Chest No. <i>SAWS-212</i> Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt. Truck		Bill of Lading/Air Bill No.	
Protocol SURV		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** **		SPECIAL INSTRUCTIONS		Hold Time	
				Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DTX3		W	<i>9-22-05</i>	<i>1006</i>	1x1000-mL P	906.0_H3_LSC: Tritium (1) <i>HK66R</i>	None
B1DTX3		W	<i>↓</i>	<i>↓</i>	1x20-mL P	Activity Scan	None
B1DTX3		W	<i>↓</i>	<i>↓</i>	2x4000-mL G/P	1129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1DTX3		W	<i>↓</i>	<i>↓</i>	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1DTX3		W	<i>↓</i>	<i>↓</i>	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By <i>R.R. Brewington</i> Sign <i>[Signature]</i> Date/Time <i>9-22-2005</i>		Received By <i>Jeff Jensen</i> Print <i>[Signature]</i> Sign <i>[Signature]</i> Date/Time <i>9-22-2005</i>		<100 CPM Matrix * S = Soil DS = Drum Solid SE = Sediment DI. = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By _____ Date/Time _____		Received By _____ Date/Time _____		
Relinquished By _____ Date/Time _____		Received By _____ Date/Time _____		
Relinquished By _____ Date/Time _____		Received By _____ Date/Time _____		
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By _____ Date/Time _____



STL

Sample Check-in List

Date/Time Received: 09 22 05 14 29

Client: PAW SDG #: W09769 NA ☐ SAF #: 705-054 NA ☐

Work Order Number: J57220395

Chain of Custody # 705-054-5 W05-009-182, 154
176, 160, 182

Shipping Container ID: SAWS 212

Air Bill # _____

1. Custody Seals on shipping container intact? NA ☒ Yes ☐ No ☐
2. Custody Seals dated and signed? NA ☒ Yes ☐ No ☐
3. Chain of Custody record present? Yes ☒ No ☐
4. Cooler temperature: _____ NA ☒ 5. Vermiculite/packing materials is NA ☐ Wet ☐ Dry ☒
6. Number of samples in shipping container: 27
7. Sample holding times exceeded? NA ☒ Yes ☐ No ☐
8. Samples have:
____ tape _____ hazard labels
☒ custody seals ☒ appropriate samples labels
9. Samples are:
☒ in good condition _____ leaking
____ broken _____ have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? NA ☐ pH < 2 ☒ pH > 2 ☒ pH > 9 ☐
11. Sample Location, Sample Collector Listed? * Yes ☒ No ☐
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes ☐ No ☒
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [Signature] Date: 09 22 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

☐ No action necessary; process as is.

Project Manager _____ Date _____

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # W05-009-124	
				Page 1 of 1	
Collector DURATEK L.O. WALL		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. W05-009		Sampling Origin		Purchase Order/Charge Code	
Project Title RCRA September 2005		<i>Los/week DTS-SAWs-H95</i>		Ice Chest No. <i>SMC 311</i> Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt Truck		Bill of Lading/Air Bill No.	
Protocol RCRA		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** **			SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
<i>W04769</i> <i>J5I220359</i> <i>Dec 110705</i>					

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DT65		W	<i>9-22-05</i>	<i>1016</i>	1x20-mL P	Activity Scan <i>HK67R</i>	None
B1DT65		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1DT65		W			1x500-mL P	9131_COLIFORM: Coliform (1) <i>1.5°C</i>	Na2S2O3 Cool 4C
B1DT65		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1DT65		W			1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1DT65		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	None

Relinquished By DURATEK <i>L.O. WALL</i> <i>[Signature]</i> <i>SEP 22 2005</i>		Received By Jeff Jensen <i>[Signature]</i> <i>SEP 22 2005</i>		Matrix * S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SI = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other	
Relinquished By _____		Received By _____			
Relinquished By _____		Received By _____			
Relinquished By _____		Received By _____			
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By _____ Date/Time _____			

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # W05-009-106	
				Page 1 of 1	
Collector DURATEK L.D. WALL		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. W05-009		Sampling Origin		Purchase Order/Charge Code	
Project Title RCRA September 2005		<i>Log Hook DTS-SAW5-H95</i>		Ice Chest No. <i>SML 311</i> Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt Truck		Bill of Lading/Air Bill No.	
Protocol RCRA		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** **			SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
<i>W04769</i>					

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DT57		W	<i>9-22-05</i>	<i>0859</i>	1x20-mL P	Activity Scan <i>HK692</i>	None
B1DT57		W	<i> </i>	<i> </i>	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1DT57		W	<i> </i>	<i> </i>	1x500-mL P	9131_COLIFORM: Coliform (1) <i>1.5°C</i>	Na2S2O3 Cool 4C
B1DT57		W	<i> </i>	<i> </i>	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1DT57		W	<i> </i>	<i> </i>	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1DT57		W	<i> </i>	<i> </i>	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	None

Relinquished By DURATEK L.D. WALL		Print Sign <i>L.D. Wall</i>		Date/Time <i>1519</i> SEP 22 2005		Received By Jeff Jensen		Print Sign <i>Jeff Jensen</i>		Date/Time <i>1510</i> SEP 22 2005		Matrix *	
Relinquished By				Date/Time		Received By				Date/Time		S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other	
Relinquished By				Date/Time		Received By				Date/Time			
Relinquished By				Date/Time		Received By				Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)						Disposed By		Date/Time			



STL

Sample Check-in List

Date/Time Received: 19 22 05 1510

Client: P4W SDG #: W04769 NA [] SAF #: W05-009 NA []

Work Order Number: J5F220359 Chain of Custody # W05-009-106, 129

Shipping Container ID: SML 311 Air Bill # _____

1. Custody Seals on shipping container intact? NA ☒ Yes [] No []
2. Custody Seals dated and signed? NA ☒ Yes [] No []
3. Chain of Custody record present? Yes ☒ No []
4. Cooler temperature: 1.5 NA [] 5. Vermiculite/packing materials is NA [] Wet [] Dry ☒
6. Number of samples in shipping container: 12
7. Sample holding times exceeded? NA [] Yes [] No ☒
8. Samples have:
____ tape _____ hazard labels
☒ custody seals ☒ appropriate samples labels
9. Samples are: _____
☒ in good condition _____ leaking
____ broken _____ have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? NA [] pH < 2 ☒ pH > 2 ☒ pH > 9 []
11. Sample Location, Sample Collector Listed? * Yes ☒ No []
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [] No ☒
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [Signature] Date: 09 22 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W05-009-216
		Page <u>1</u> of <u>1</u>

Collector: D.R. BREWINGTON	Contact/Requester Dot Stewart	Telephone No. MSIN FAX 509-376-5056
SAF No. W05-009	Sampling Origin	Purchase Order/Charge Code
Project Title RCRA September 2005	DTS-SAWS-H93 pg 52	Ice Chest No. Temp. SAWS-212
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt Truck	Bill of Lading/Air Bill No. N/A
Protocol RCRA	Priority: 45 Days	Offsite Property No. N/A

POSSIBLE SAMPLE HAZARDS/REMARKS ** ** <div style="text-align: center;"> W09769 J5F240201 Due 11 07 09 05 </div>	SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	--

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DTD2		W	<u>9/23/05</u>	<u>1203</u>	1x20-mL P	Activity Scan <div style="text-align: center;">HLDCCL</div>	None
B1DTD2		W	<u>1</u>	<u>1</u>	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1DTD2		W	<u>1</u>	<u>1</u>	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1DTD2		W	<u>1</u>	<u>1</u>	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By Print Sign D.R. BREWINGTON <i>[Signature]</i>	Date/Time 9/23/05	Received By Print Sign DAVE HARBINSON <i>[Signature]</i>	Date/Time 9/23/05	<100 GPM Matrix
Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By Date/Time
---	--------------------------

S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air	DS = Drum Solid DL = Drum Liquid T = Tissue WI = Wine L = Liquid V = Vegetation X = Other
---	---

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # W05-009-194	
				Page 1 of 1	
Collector D.R. BREWINSTON		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. W05-009		Sampling Origin		Purchase Order/Charge Code	
Project Title RCRA September 2005		DTS-SALOS H93 pg 51		Ice Chest No. Temp. SALOS-212	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt Truck		Bill of Lading/Air Bill No. N/A	
Protocol RCRA		Priority: 45 Days		Offsite Property No. N/A	
POSSIBLE SAMPLE HAZARDS/REMARKS ** **			SPECIAL INSTRUCTIONS		
W04767			Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DTD7		W	9/23/05	0845	1x20-mL P	Activity Scan HLDC F	None
B1DTD7		W	L	L	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1DTD7		W	L	L	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By D.R. Brewington <i>D.R. Brewington</i> 9/23/05		Received By DAVE HARBINSON <i>DAVE HARBINSON</i> 9/23/05		<100 CPM S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By		Received By		
Relinquished By		Received By		
Relinquished By		Received By		
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time		

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W05-009-195
		Page 1 of 1

Collector D.R. BREWINGTON	Contact/Requester Dot Stewart	Telephone No. MSIN FAX 509-376-5056
SAF No. W05-009	Sampling Origin	Purchase Order/Charge Code
Project Title RCRA September 2005	DIS-SAW5-1193	Ice Chest No. SAW5-212 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt Truck	Bill of Lading/Air Bill No. N/A
Protocol RCRA	Priority: 45 Days	Offsite Property No. N/A

POSSIBLE SAMPLE HAZARDS/REMARKS ** ** W09769	SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	--

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DTD8		W	9/23/05	0715	1x20-mL P	Activity Scan HLDCG	None
B1DTD8		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1DTD8		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By D.R. BREWINGTON	Received By DAVE HARBINSKY	<100 GRM																												
Relinquished By Date/Time	Received By Date/Time	<table style="font-size: small;"> <tr><td>S</td><td>= Soil</td><td>DS</td><td>= Drum Solid</td></tr> <tr><td>SE</td><td>= Sediment</td><td>DL</td><td>= Drum Liquid</td></tr> <tr><td>SO</td><td>= Solid</td><td>T</td><td>= Tissue</td></tr> <tr><td>SL</td><td>= Sludge</td><td>WI</td><td>= Wine</td></tr> <tr><td>W</td><td>= Water</td><td>L</td><td>= Liquid</td></tr> <tr><td>O</td><td>= Oil</td><td>V</td><td>= Vegetation</td></tr> <tr><td>A</td><td>= Air</td><td>X</td><td>= Other</td></tr> </table>	S	= Soil	DS	= Drum Solid	SE	= Sediment	DL	= Drum Liquid	SO	= Solid	T	= Tissue	SL	= Sludge	WI	= Wine	W	= Water	L	= Liquid	O	= Oil	V	= Vegetation	A	= Air	X	= Other
S	= Soil		DS	= Drum Solid																										
SE	= Sediment		DL	= Drum Liquid																										
SO	= Solid		T	= Tissue																										
SL	= Sludge	WI	= Wine																											
W	= Water	L	= Liquid																											
O	= Oil	V	= Vegetation																											
A	= Air	X	= Other																											
Relinquished By Date/Time	Received By Date/Time																													
Relinquished By Date/Time	Received By Date/Time																													
<table style="width:100%;"> <tr> <td style="width:20%;">FINAL SAMPLE DISPOSITION</td> <td style="width:40%;">Disposal Method (e.g., Return to customer, per lab procedure, used in process)</td> <td style="width:20%;">Disposed By</td> <td style="width:20%;">Date/Time</td> </tr> </table>			FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time																								
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time																											



STL

Sample Check-in List

Date/Time Received: 9-23-05 14:26

Client: PWWL PWW SDG #: W09769 NA ☐ SAF #: W05-009 NA ☐ I05-059

Work Order Number: JSI240201

Chain of Custody # W05-009-195, I05-054-14

Shipping Container ID: SAWS 212

Air Bill # W05-009-194

1. Custody Seals on shipping container intact? NA ☒ Yes ☐ No ☐ I05-054-11
2. Custody Seals dated and signed? NA ☒ Yes ☐ No ☐ W05-009-11
3. Chain of Custody record present? Yes ☒ No ☐
4. Cooler temperature: _____ NA ☒ 5. Vermiculite/packing materials is NA ☒ Wet ☐ Dry ☐
6. Number of samples in shipping container: 28
7. Sample holding times exceeded? NA ☒ Yes ☐ No ☐
8. Samples have:
☒ tape ☐ hazard labels
☒ custody seals ☒ appropriate samples labels
9. Samples are:
☒ in good condition ☐ leaking
☐ broken ☐ have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? YES NA ☐ pH < 2 ☒ pH > 2 ☒ pH > 9 ☐
11. Sample Location, Sample Collector Listed? * Yes ☒ No ☐
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes ☐ No ☒
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [Signature]

Date: 9/23/05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # 105-054-11
		Page 1 of 1		
Collector D.R. BREWINGTON		Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN FAX
SAF No. 105-054		Sampling Origin	Purchase Order/Charge Code	
Project Title LTMC & 21UP1-C. SEPTEMBER 2005		DTS-SAWS-H93 pg 52	Ice Chest No. SAWS-212	Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt. Truck	Bill of Lading/Air Bill No. N/A	
Protocol SURV		Priority: 45 Days	Offsite Property No. N/A	
POSSIBLE SAMPLE HAZARDS/REMARKS ** **		SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
W09767 JSF 240202 Due 11 07 05				

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DTY1		W	9/23/05	1256	1x1000-mL P	906.0_H3_LSC: Tritium (1) HL DCH	None
B1DTY1		W			1x20-mL P	Activity Scan	None
B1DTY1		W			2x4000-mL G/P	1129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1DTY1		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1DTY1		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1DTY1		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By Print Sign		Date/Time 9/23/05		Received By Print Sign		Date/Time 9/23/05		<100 GPM Matrix * S = Soil DS = Drum Solid SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By		Date/Time		Received By		Date/Time		
Relinquished By		Date/Time		Received By		Date/Time		
Relinquished By		Date/Time		Received By		Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By		Date/Time

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # I05-054-14	
				Page 1 of 1	
Collector <i>D.R. Brewington</i>		Contact/Requester <i>Dot Stewart</i>		Telephone No. MSIN FAX 509-376-5056	
SAF No. I05-054		Sampling Origin		Purchase Order/Charge Code	
Project Title LTMC & 2UPL-C. SEPTEMBER 2005		<i>DTS-SAWS-1493 pg 51</i>		Ice Chest No. <i>SAWS-212</i> Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt. Truck		Bill of Lading/Air Bill No. <i>N/A</i>	
Protocol SURV		Priority: 45 Days		Offsite Property No. <i>N/A</i>	
POSSIBLE SAMPLE HAZARDS/REMARKS <i>** ** W09769</i>			SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DITY6		W	<i>9/23/05</i>	<i>1021</i>	1x1000-mL P	906.0_H3_LSC: Tritium (1) <i>HL DC J</i>	None
B1DITY6		W	<i> </i>	<i> </i>	1x20-mL P	Activity Scan	None
B1DITY6		W	<i> </i>	<i> </i>	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1DITY6		W	<i> </i>	<i> </i>	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1DITY6		W	<i> </i>	<i> </i>	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1DITY6		W	<i> </i>	<i> </i>	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By <i>D.R. Brewington</i> <i>D.R. Brewington</i>		Date/Time <i>9/23/05</i>		Received By <i>DAVE HARDINSON</i>		Date/Time <i>9/23/05</i>		<100 CPM Matrix * S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By <i>D.R. Brewington</i>		Date/Time		Received By		Date/Time		
Relinquished By		Date/Time		Received By		Date/Time		
Relinquished By		Date/Time		Received By		Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By		Date/Time



STL

Sample Check-in List

Date/Time Received: 9-23-05 14:26

Client: PWWL PWW SDG #: W09769 NA ☐ SAF #: W05-009 NA ☐ I05-054

Work Order Number: 751240202

Chain of Custody # W05-009-195, I05-054-14

Shipping Container ID: SM5212

Air Bill # W05-009-194

1. Custody Seals on shipping container intact? NA ☒ Yes ☐ No ☐ I05-054-11
2. Custody Seals dated and signed? NA ☒ Yes ☐ No ☐
3. Chain of Custody record present? Yes ☒ No ☐
4. Cooler temperature: NA ☒ 5. Vermiculite/packing materials is NA ☒ Wet ☐ Dry ☐ W05-009-116

6. Number of samples in shipping container: 28

7. Sample holding times exceeded? NA ☒ Yes ☐ No ☐

8. Samples have:

 tape
 custody seals

 hazard labels
 appropriate samples labels

9. Samples are:
 in good condition
 broken

 leaking
 have air bubbles
(Only for samples requiring head space)

10. Sample pH taken? YES NA ☐ pH < 2 ☒ pH > 2 ☒ pH > 9 ☐

11. Sample Location, Sample Collector Listed? * Yes ☒ No ☐
*For documentation only. No corrective action needed.

12. Were any anomalies identified in sample receipt? Yes ☐ No ☒

13. Description of anomalies (include sample numbers): _____

Sample Custodian: [Signature]

Date: 9/23/05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W05-009-234
		Page 1 of 1

Collector DURATEX R.T. SICKLE	Contact/Requester Dot Stewart	Telephone No. 509-376-5056
SAF No. W05-009	Sampling Origin	Purchase Order/Charge Code
Project Title RCRA September 2005	Method of Shipment DTS- SAL-5 H98 Govt Truck	Ice Chest No. SAL 550 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Bill of Lading/Air Bill No.	Offsite Property No.
Protocol RCRA	Priority: 45 Days	

POSSIBLE SAMPLE HAZARDS/REMARKS ** ** <div style="text-align: center;"> W04769 J5I240 203 Due 11 07 05 </div>	SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DTC4		W	9-23-05	1256	1x20-mL P	Activity Scan <div style="text-align: center;">HL DCL</div>	None
B1DTC4		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1DTC4		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By DURATEX R.T. SICKLE	Date/Time 1445 SEP 23 2005	Received By DAVE HARDIN	Date/Time 1445 SEP 23 2005		<100 GRM																												
Relinquished By	Date/Time	Received By	Date/Time		<table style="font-size: small;"> <tr><td>S</td><td>= Soil</td><td>DS</td><td>= Drum Solid</td></tr> <tr><td>SE</td><td>= Sediment</td><td>DL</td><td>= Drum Liquid</td></tr> <tr><td>SO</td><td>= Solid</td><td>T</td><td>= Tissue</td></tr> <tr><td>SL</td><td>= Sludge</td><td>WI</td><td>= Wine</td></tr> <tr><td>W</td><td>= Water</td><td>L</td><td>= Liquid</td></tr> <tr><td>O</td><td>= Oil</td><td>V</td><td>= Vegetation</td></tr> <tr><td>A</td><td>= Air</td><td>X</td><td>= Other</td></tr> </table>	S	= Soil	DS	= Drum Solid	SE	= Sediment	DL	= Drum Liquid	SO	= Solid	T	= Tissue	SL	= Sludge	WI	= Wine	W	= Water	L	= Liquid	O	= Oil	V	= Vegetation	A	= Air	X	= Other
S	= Soil	DS	= Drum Solid																														
SE	= Sediment	DL	= Drum Liquid																														
SO	= Solid	T	= Tissue																														
SL	= Sludge	WI	= Wine																														
W	= Water	L	= Liquid																														
O	= Oil	V	= Vegetation																														
A	= Air	X	= Other																														
Relinquished By	Date/Time	Received By	Date/Time																														
Relinquished By	Date/Time	Received By	Date/Time																														
<table style="width:100%;"> <tr> <td style="width:15%;">FINAL SAMPLE DISPOSITION</td> <td style="width:40%;">Disposal Method (e.g., Return to customer, per lab procedure, used in process)</td> <td style="width:20%;">Disposed By</td> <td style="width:25%;">Date/Time</td> </tr> </table>						FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time																								
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time																														

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # W05-009-244	
				Page <u>1</u> of <u>1</u>	
Collector DURATEK R. T. SICKLE		Contact/Requester Dot Stewart		Telephone No. MSIN 509-376-5056 FAX	
SAF No. W05-009		Sampling Origin		Purchase Order/Charge Code	
Project Title RCRA September 2005		OTS-Sams H 98		Ice Chest No. Sam 350 Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt Truck		Bill of Lading/Air Bill No.	
Protocol RCRA		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** W04769			SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DRW4		W	9-23-05	1650	1x20-mL P	Activity Scan HLDCM	None
B1DRW4		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1DRW4		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2

Relinquished By DURATEK R. T. SICKLE Print Sign		Date/Time 1445 SEP 23 2005	Received By DAVE HARBINSON Print Sign		Date/Time 1445 SEP 23 2005	<100 CFM* S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other	
Relinquished By		Date/Time	Received By		Date/Time		
Relinquished By		Date/Time	Received By		Date/Time		
Relinquished By		Date/Time	Received By		Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By	Date/Time

PNNL	<h2 style="margin: 0;">CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</h2>	C.O.C. # <div style="font-size: 1.2em; font-weight: bold;">W05-009-250</div>
		Page 1 of 1

Collector <div style="font-weight: bold;">DURATEX R. T. SICKLE</div>	Contact/Requester Dot Stewart	Telephone No. MSIN FAX 509-376-5056
SAF No. W05-009	Sampling Origin	Purchase Order/Charge Code
Project Title RCRA September 2005	Ice Chest No. <i>Small 550</i> Temp.	Bill of Lading/Air Bill No.
Shipped To (Lab) (Severn Trent Incorporated, Richland)	Method of Shipment Govt Truck	Offsite Property No.
Protocol RCRA	Priority: 45 Days	

POSSIBLE SAMPLE HAZARDS/REMARKS ** ** W04767	SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DRW8		W	9-23-05	0859	1x20-mL P	Activity Scan HLDCN	None
B1DRW8		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1DRW8		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2

Relinquished By <div style="font-weight: bold;">DURATEX R. T. SICKLE</div>	Date/Time <i>1445</i> <div style="font-size: 1.2em; font-weight: bold;">SEP 23 2005</div>	Received By <div style="font-weight: bold;">DAVE HAD B'INSA</div>	Date/Time <i>1445</i> <div style="font-size: 1.2em; font-weight: bold;">SEP 23 2005</div>		<div style="font-size: 1.5em; font-weight: bold;"><100 CPM</div> <div style="font-size: 0.8em;"> S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other </div>
Relinquished By	Date/Time	Received By	Date/Time		
Relinquished By	Date/Time	Received By	Date/Time		
Relinquished By	Date/Time	Received By	Date/Time		

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time
---------------------------------	---	--------------------	------------------



STL

Sample Check-in List

Date/Time Received: 09 23 05 1445

Client: PAL SDG #: W09767 NA ☐ SAF #: A05-013 W05-009 NA ☐

Work Order Number: JSI20203

Chain of Custody # A05-013-4,5

Shipping Container ID: SML 550

Air Bill # W05-009-250, 299, 234

1. Custody Seals on shipping container intact? NA ☒ Yes ☐ No ☐
2. Custody Seals dated and signed? NA ☒ Yes ☐ No ☐
3. Chain of Custody record present? Yes ☒ No ☐
4. Cooler temperature: _____ NA ☒ 5. Vermiculite/packing materials is NA ☐ Wet ☐ Dry ☒
6. Number of samples in shipping container: 19
7. Sample holding times exceeded? NA ☒ Yes ☐ No ☐
8. Samples have:
_____ tape _____ hazard labels
☒ custody seals ☒ appropriate samples labels
9. Samples are:
☒ in good condition _____ leaking
_____ broken _____ have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? NA ☐ pH<2 ☒ pH>2 ☒ pH>9 ☐
11. Sample Location, Sample Collector Listed? * Yes ☒ No ☐
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes ☐ No ☒
13. Description of anomalies (include sample numbers): _____

Sample Custodian: JMR Date: 092305

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # A05-013-4
		Page <u>1</u> of <u>1</u>

Collector DURATEK R. T. SICKLE	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. A05-013	Sampling Origin	Purchase Order/Charge Code
Project Title Performance Assessment Monitoring Sept 2005	OTS-SAWY HGB	Ice Chest No. SML 350 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt Truck	Bill of Lading/Air Bill No.
Protocol Other	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS ** ** <div style="text-align: center; margin-top: 20px;"> W09769 J51240209 Dm 110705 </div>	SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	--

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DMV7		W	9-23-05	1650	1x20-mL P	Activity Scan <div style="text-align: right;">HLDCP</div>	None
B1DMV7		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1DMV7		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1DMV7		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By DURATEK R. T. SICKLE	Print 	Date/Time 1445 SEP 23 2005	Received By DAVE HARBINSON	Print 	Date/Time 1445 SEP 23 2005
<div style="display: flex; justify-content: space-between;"> <div> <100 CPM Matrix * S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air </div> <div> DS = Drum Solid DL = Drum Liquid T = Tissue WT = Wine L = Liquid V = Vegetation X = Other </div> </div>					
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By	
				Date/Time	

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # A05-013-5
		Page 1 of 1

Collector DURATEX R. T. SICKLE	Contact/Requester Dot Stewart	Telephone No. MSIN FAX 509-376-5056
SAF No. A05-013	Sampling Origin	Purchase Order/Charge Code
Project Title Performance Assessment Monitoring Sept 2005	DTS-SAWC H 98	Ice Chest No. Temp. SML 550
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt Truck	Bill of Lading/Air Bill No.
Protocol Other	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS ** ** W04767	SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	--

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DMT9		W	9-23-05	0859	1x20-mL P	Activity Scan HLDET	None
B1DMT9		W			2x4000-mL G/P	H29LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1DMT9		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1DMT9		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By DURATEX R. T. SICKLE Date/Time SEP 23 2005 1445	Received By DAVE HARRISON Date/Time SEP 23 2005 1445	<100 CPM S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Received By	
Relinquished By	Received By	
Relinquished By	Received By	
FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time		



STL

Sample Check-in List

Date/Time Received: 09 23 05 1445

Client: PAC SDG #: W09769 NA ☐ SAF #: A05-013
W05-009 NA ☐

Work Order Number: J5I240204

Chain of Custody # A05-013-4,5
W05-009-250, 249, 234

Shipping Container ID: SML 550

Air Bill # _____

1. Custody Seals on shipping container intact? NA ☒ Yes ☐ No ☐
2. Custody Seals dated and signed? NA ☒ Yes ☐ No ☐
3. Chain of Custody record present? Yes ☒ No ☐
4. Cooler temperature: _____ NA ☒ 5. Vermiculite/packing materials is NA ☐ Wet ☐ Dry ☒
6. Number of samples in shipping container: 19
7. Sample holding times exceeded? NA ☒ Yes ☐ No ☐
8. Samples have:
_____ tape _____ hazard labels
☒ custody seals ☒ appropriate samples labels
9. Samples are:
☒ in good condition _____ leaking
_____ broken _____ have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? NA ☐ pH < 2 ☒ pH > 2 ☒ pH > 9 ☐
11. Sample Location, Sample Collector Listed? * Yes ☒ No ☐
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes ☐ No ☒
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [Signature] Date: 09 23 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

10/29/2005 1:46:50 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National Lab

BN I-129 Prp/SepRC5025

TB Gamma by LEPD

Pipet #:

Report Due: 11/07/2005

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 5273296 WATER








pCi/L

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HK66R-1-AC J5I220345-1-SAMP  09/22/2005 10:06		3940.00g,in	ITA4720 10/19/05,pd			37.8 100	L4	1345	11/2/05 R	
AmtRec: 20ML,500P,4XLP,2X4LP #Containers: 8 Scr: Alpha: -1.31E-03 uCi/Sa Beta: 3.73E-03 uCi/Sa										
2 HLDCH-1-AC J5I240202-1-SAMP  09/23/2005 12:56		3903.30g,in	ITA4721 10/19/05,pd			38.0	LS	1346	11/2/05 R	
AmtRec: 20ML,2X500P,4XLP,2X4LP #Containers: 9 Scr: Alpha: 1.30E-03 uCi/Sa Beta: 5.84E-04 uCi/Sa										
3 HLDCH-1-AC J5I240202-2-SAMP  09/23/2005 10:21		3922.60g,in	ITA4722 10/19/05,pd			37.5	L4	1529	11/2/05 R	
AmtRec: 20ML,2X500P,4XLP,2X4LP #Containers: 9 Scr: Alpha: 8.44E-03 uCi/Sa 2.8E-01L Beta: -1.75E-03 uCi/Sa										
4 HLDCH-1-AA J5I240204-1-SAMP  09/23/2005 10:50		3900.00g,in	ITA4723 10/19/05,pd			38.1	LS	1530	11/2/05 R	
AmtRec: 20ML,2X500P,2X4LP #Containers: 5 Scr: Alpha: -1.67E-04 uCi/Sa Beta: -2.70E-05 uCi/Sa										
5 HLDCT-1-AA J5I240204-2-SAMP  09/23/2005 08:59		3900.00g,in	ITA4724 10/19/05,pd			38.3	L4	1730	11/2/05 R	
AmtRec: 20ML,2X500P,2X4LP #Containers: 5 Scr: Alpha: 1.00E-03 uCi/Sa Beta: 4.05E-04 uCi/Sa										
6 HLDCT-1-AE-X J5I240204-2-DUP  09/23/2005 08:59		3816.10g,in	ITA4725 10/19/05,pd			38.3	LS	1730		
AmtRec: 20ML,2X500P,2X4LP #Containers: 5 Scr: Alpha: 1.00E-03 uCi/Sa Beta: 4.05E-04 uCi/Sa										
7 HLQ4E-1-AA-B J5I300000-296-BLK  09/23/2005 08:59		3835.30g,in	ITA4726 10/19/05,pd			36.8	L4	1930		
AmtRec: #Containers: 1 Scr: Alpha: Beta:										

STL Richland

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2

Page 1

ISV - Insufficient Volume for Analysis

WO Cnt: 7

Richland Wa.

pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Prep_SamplePrep v4.8.14

10/29/2005 1:46:52 PM

Sample Preparation/Analysis

Balance Id:1120482733

BN I-129 Prp/SepRC5025

TB Gamma by LEPD

5I CLIENT: HANFORD

Pipet #: _____

Report Due: 11/07/2005

Sep1 DT/Tm Tech:

Batch: 5273296

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
--------------------------------------	-------------------	-----------------------------	------------------------	--------------	--------------------	-------------------	----------------	---------------------------------	--------------------------	-----------

8 HLQ4E-1-AC-C

4000.00g,in

ISD0576

09/24/05,pd

40.2

L5

1930

11/2/05010

J5I300000-296-LCS



09/23/2005 08:59

AmtRec:

#Containers: 1

Scr:

Alpha:

Beta:

Comments:

pH neutral

All Clients for Batch:

384868, Pacific Northwest National Laboratories

Pacific Northwest National Lab, SS , 57671

HK66R1AC-SAMP Constituent List:

I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:
HLQ4E1AA-BLK:					
I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:
HLQ4E1AC-LCS:					
I-129	RDL:5	pCi/L	LCL:70	UCL:130	RPD:20

HK66R1AC-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
HLQ4E1AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
HLQ4E1AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____

Date: _____

11/3/2005 3:01:06 PM

ICOC Fraction Transfer/Status Report

ByDate: 11/3/2004, 11/8/2005, Batch: '5273296', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
5273296				
AC	CalcC	GiroirB	10/27/2005 9:07:23	
SC		wagarr	IsBatched 9/30/2005 11:37:43 AM	ICOC_RADCALC v4.8.08
SC		GiroirB	InPrep 10/27/2005 9:07:23 AM	RICH-RC-5016 REVISION 5
SC		GiroirB	Prep1C 10/29/2005 1:53:20 PM	RICH-RC-5016 REVISION 5
SC		NortonJ	InSep1 10/31/2005 2:54:04 PM	RICHRC5025 REV3
SC		NortonJ	Sep1C 11/2/2005 11:55:46 AM	RICH-RC-5025 REVISION3
SC		StringerR	InCnt1 11/2/2005 12:00:02 PM	RICH-RD-0007 REVISION 5
SC		DAWKINSO	CalcC 11/2/2005 8:13:58 PM	RICH-RD-0007 REVISION 5
AC		GiroirB	10/29/2005 1:53:20	
AC		NortonJ	10/31/2005 2:54:04	
AC		NortonJ	11/2/2005 11:55:46	
AC		StringerR	11/2/2005 12:00:02	
AC		DAWKINSO	11/2/2005 8:13:58 PM	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

10/29/2005 10:54:48 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National Lab

AW Gamma PrpRC5017

TA Gamma by HPGE

5I CLIENT: HANFORD

Pipet #: _____

Report Due: 11/07/2005

Sep1 DT/Tm Tech:

Batch: 5273300 WATER

pCi/L







PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

Scott

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HK1MJ-1-AE J51200383-2-SAMP  09/20/2005 12:16	1956.00g,in									
					100	100		G6 1720	11/07/05 00	
			AmtRec: 20ML,5XLP,4LP	#Containers: 7				Scr: Alpha: 1.30E-03 uCi/Sa	Beta: -3.24E-04 uCi/Sa	
2 HK69R-1-AD J51220359-1-SAMP  09/22/2005 10:16	1982.80g,in									
			AmtRec: 20ML,3X500P,LP,4LP	#Containers: 6				Scr: Alpha: -5.73E-04 uCi/Sa	Beta: 3.11E-04 uCi/Sa	
3 HK69R-1-AG-X J51220359-1-DUP  09/22/2005 10:16	1982.80g,in									
			AmtRec: 20ML,3X500P,LP,4LP	#Containers: 6				Scr: Alpha: -5.73E-04 uCi/Sa	Beta: 3.11E-04 uCi/Sa	
4 HK692-1-AD J51220359-2-SAMP  09/22/2005 08:59	1997.60g,in									
			AmtRec: 20ML,3X500P,LP,4LP	#Containers: 6				Scr: Alpha: 7.11E-04 uCi/Sa	Beta: -4.67E-04 uCi/Sa	
5 HLQ4M-1-AA-B J51300000-300-BLK  09/22/2005 10:16	1994.30g,in									
			AmtRec:	#Containers: 1				Scr: Alpha:	Beta:	
6 HLQ4M-1-AC-C J51300000-300-LCS  09/22/2005 10:16	1962.70g,in		QCAG1138 08/22/05,pd							
			AmtRec:	#Containers: 1				Scr: Alpha:	Beta:	

10/29/2005 10:54:50 AM

Sample Preparation/Analysis

Balance Id:1120482733

AW Gamma PrpRC5017
TA Gamma by HPGE
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 11/07/2005

Sep1 DT/Tm Tech:

Batch: 5273300

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
--------------------------------------	-------------------	-----------------------------	------------------------	--------------	--------------------	-------------------	----------------	---------------------------------	--------------------------	-----------

Comments: HK69R-SAMP "Comments: gamma count dup on dif det. Bg"

PH adj

All Clients for Batch:

384868, Pacific Northwest National Laboratories Pacific Northwest National Lab, SS, 57671

HK1MJ1AE-SAMP Constituent List:

Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20
Eu-154	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Eu-155	RDL:.00E+00	pCi/L	LCL:	UCL:	RPD:
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:

HLQ4M1AA-BLK:

Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:6.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-137DA	RDL:6.00E+00	pCi/L	LCL:	UCL:	RPD:
Eu-154	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Eu-155	RDL:.00E+00	pCi/L	LCL:	UCL:	RPD:
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:

HLQ4M1AC-LCS:

Cs-137	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20
K-40	RDL:6	pCi/L	LCL:70	UCL:130	RPD:20	Ra-226	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
RA-228	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20	RA-228DA	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
U-238	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20						

HK1MJ1AE-SAMP Calc Info:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HLQ4M1AA-BLK:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HLQ4M1AC-LCS:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

11/3/2005 3:12:42 PM

ICOC Fraction Transfer/Status Report

ByDate: 11/3/2004, 11/8/2005, Batch: '5273300', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
5273300				
AC	CalcC	GiroirB	10/27/2005 9:07:27	
SC		wagarr	IsBatched 9/30/2005 11:37:43 AM	ICOC_RADCALC v4.8.08
SC		GiroirB	InPrep 10/27/2005 9:07:27 AM	RICH-RC-5017 REVISION 4
SC		GiroirB	Prep1C 10/29/2005 10:56:07 AM	RICH-RC-5017 REVISION 4
SC		ScottM	InPrep2 10/31/2005 6:58:24 AM	RICH-RC-5017 REVISION 4
SC		ScottM	Prep2C 11/2/2005 10:54:54 AM	RICH-RC-5017 REVISION 4
SC		StringerR	InCnt1 11/2/2005 11:42:24 AM	RICH-RD-0007 REVISION 5
SC		DAWKINSO	CalcC 11/2/2005 9:29:33 PM	RICH-RD-0007 REVISION 5
AC		GiroirB	10/29/2005 10:56:07	
AC		ScottM	10/31/2005 6:58:24	
AC		ScottM	11/2/2005 10:54:54	
AC		StringerR	11/2/2005 11:42:24	
AC		DAWKINSO	11/2/2005 9:29:33 PM	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

10/29/2005 10:39:12 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabAZ Gross Alpha PrpRC5014
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Pipet #: 229

Report Due: 11/07/2005

Sep1 DT/Tm Tech:

Batch: 5273267 WATER

pCi/L

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HK1MJ-1-AC J5I200383-2-SAMP 09/20/2005 12:16	200.60g,in									
					1.5	41.7	100	10A	1809	11/4/0500
		AmtRec: 20ML,5XLP,4LP	#Containers: 7					Scr: Alpha: 1.30E-03 uCi/Sa		Beta: -3.24E-04 uCi/Sa
2 HK65H-1-AC J5I220336-3-SAMP 09/22/2005 08:25	144.60g,in									
					31.3			10B		
		AmtRec: 20ML,2X500P,2XLP	#Containers: 5					Scr: Alpha: 1.22E-03 uCi/Sa		Beta: 7.22E-04 uCi/Sa
3 HLDCM-1-AC J5I240203-2-SAMP 09/23/2005 10:50	196.90g,in									
					39.7			10C		
		AmtRec: 20ML,2XLP	#Containers: 3					Scr: Alpha: 4.63E-04 uCi/Sa		Beta: -4.88E-04 uCi/Sa
4 HLDCM-1-AE-X J5I240203-2-DUP 09/23/2005 10:50	201.00g,in									
					39.3			10D		
		AmtRec: 20ML,2XLP	#Containers: 3					Scr: Alpha: 4.63E-04 uCi/Sa		Beta: -4.88E-04 uCi/Sa
5 HLDCN-1-AC J5I240203-3-SAMP 09/23/2005 08:59	199.40g,in									
					34.6			10E		
		AmtRec: 20ML,2XLP	#Containers: 3					Scr: Alpha: 1.66E-04 uCi/Sa		Beta: 6.18E-04 uCi/Sa
6 HLQ1F-1-AA-B J5I300000-267-BLK 09/23/2005 10:50	203.20g,in									
					0.3			10A	2109	11/4/0500
		AmtRec:	#Containers: 1					Scr: Alpha:		Beta:
7 HLQ1F-1-AC-C J5I300000-267-LCS 09/23/2005 10:50	197.20g,in									
		ASD3687 10/07/05,pd			0.4			10B		
		AmtRec:	#Containers: 1					Scr: Alpha:		Beta:

10/29/2005 10:39:13 AM

Sample Preparation/Analysis

Balance Id:1120482733

AZ Gross Alpha PrpRC5014
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 11/07/2005

Sep1 DT/Tm Tech:

Batch: 5273267

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
--------------------------------------	-------------------	-----------------------------	------------------------	--------------	--------------------	-------------------	----------------	---------------------------------	--------------------------	-----------

Comments:

Plutonium

All Clients for Batch:

384868, Pacific Northwest National Laboratories Pacific Northwest National Lab, SS , 57671

HK1MJ1AC-SAMP Constituent List:

ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
HLQ1F1AA-BLK:					
ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
HLQ1F1AC-LCS:					
Am-241	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

HK1MJ1AC-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
HLQ1F1AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
HLQ1F1AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____

Date: _____

11/7/2005 1:47:14 PM

ICOC Fraction Transfer/Status Report

ByDate: 11/7/2004, 11/12/2005, Batch: '5273267', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
5273267				
AC	CalcC	GiroirB	10/27/2005 9:07:11	
SC		wagarr	IsBatched	9/30/2005 11:37:43 AM
SC		GiroirB	InPrep	10/27/2005 9:07:11 AM
SC		GiroirB	Prep1C	10/29/2005 10:42:28 AM
SC		ScottM	InPrep2	10/31/2005 6:54:50 AM
SC		ScottM	Prep2C	11/3/2005 2:21:41 PM
SC		DAWKINSO	InCnt1	11/3/2005 5:48:13 PM
SC		DAWKINSO	CalcC	11/4/2005 10:21:31 PM
AC		GiroirB		10/29/2005 10:42:28
AC		ScottM		10/31/2005 6:54:50
AC		ScottM		11/3/2005 2:21:41 PM
AC		DAWKINSO		11/3/2005 5:48:13 PM
AC		DAWKINSO		11/4/2005 10:21:31

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

10/29/2005 10:39:14 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabBC Gross Beta PrpRC5014
S8 Gross Beta by GPC using Sr/Y-90 curve
SI CLIENT: HANFORD

Pipet #: 229

Report Due: 11/07/2005

Sep1 DT/Tm Tech:

Batch: 5273293 WATER
SEQ Batch, Test: None

pCi/L

PM, Quote: SS, 57671

Sep2 DT/Tm Tech:

Prep Tech: ,GiroirB

Scott

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HK1L3-1-AC J5I200383-1-SAMP 09/20/2005 10:31	201.80g,in									
					1.5	51.7	200	32 D	2020	11/3/05
		AmtRec: 20ML,5XLP	#Containers: 6				Scr:	Alpha: 2.01E-06 uCi/Sa		Beta: 1.50E-06 uCi/Sa
2 HK1MJ-1-AD J5I200383-2-SAMP 09/20/2005 12:16	201.90g,in									
					60.9		32A			
		AmtRec: 20ML,5XLP,4LP	#Containers: 7				Scr:	Alpha: 1.30E-03 uCi/Sa		Beta: -3.24E-04 uCi/Sa
3 HK65H-1-AD J5I220336-3-SAMP 09/22/2005 08:25	169.60g,in									
					25.8		32B			
		AmtRec: 20ML,2X500P,2XLP	#Containers: 5				Scr:	Alpha: 1.22E-03 uCi/Sa		Beta: 7.22E-04 uCi/Sa
4 HK65H-1-AG-X J5I220336-3-DUP 09/22/2005 08:25	170.00g,in									
					26.1		32C			
		AmtRec: 20ML,2X500P,2XLP	#Containers: 5				Scr:	Alpha: 1.22E-03 uCi/Sa		Beta: 7.22E-04 uCi/Sa
5 HK69R-1-AC J5I220359-1-SAMP 09/22/2005 10:16	83.80g,in									
					41.1		31a	1720	11/3/05	
		AmtRec: 20ML,3X500P,LP,4LP	#Containers: 6				Scr:	Alpha: -5.73E-04 uCi/Sa		Beta: 3.11E-04 uCi/Sa
6 HK692-1-AC J5I220359-2-SAMP 09/22/2005 08:59	100.80g,in									
					40.5		31b			
		AmtRec: 20ML,3X500P,LP,4LP	#Containers: 6				Scr:	Alpha: 7.11E-04 uCi/Sa		Beta: -4.67E-04 uCi/Sa
7 HLCM-1-AD J5I240203-2-SAMP 09/23/2005 10:50	132.00g,in									
					✓ 54.5		31c			
		AmtRec: 20ML,2XLP	#Containers: 3				Scr:	Alpha: 4.63E-04 uCi/Sa		Beta: -4.88E-04 uCi/Sa

STL Richland
Richland Wa.Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2
pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Page 1

ISV - Insufficient Volume for Analysis

WO Cnt: 7
Prep_SamplePrep v4.8.14

10/29/2005 10:39:15 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabBC Gross Beta PrpRC5014
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Pipet #: 229

Report Due: 11/07/2005

Sep1 DT/Tm Tech:

Batch: 5273293 WATER

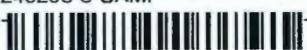

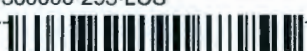
pCi/L

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst Init/Date	Comments:
8 HLDCN-1-AD J5I240203-3-SAMP  09/23/2005 08:59	194.00g,in									
1.5 61.1 200 31d 1720 11/3/05 PS 11/4/05										
	AmtRec: 20ML,2XLP	#Containers: 3					Scr:	Alpha: 1.66E-04 uCi/Sa	Beta: 6.18E-04 uCi/Sa	
9 HLQ3R-1-AA-B J5I300000-293-BLK  09/22/2005 08:25	190.90g,in									
0.1 32a										
	AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:	
10HLQ3R-1-AC-C J5I300000-293-LCS  09/22/2005 08:25	195.20g,in	BESB2568 10/24/05,pd								
0.5 32b										
	AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:	

Comments:

pH verified

All Clients for Batch:

384868, Pacific Northwest National Laboratories

Pacific Northwest National Lab, SS , 57671

HK1L31AC-SAMP Constituent List:

BETA	RDL:4.00E+00	pCi/L	LCL:	UCL:	RPD:
HLQ3R1AA-BLK:					
BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
HLQ3R1AC-LCS:					
Sr-90	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

HK1L31AC-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
HLQ3R1AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
HLQ3R1AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

ICOC Fraction Transfer/Status Report

ByDate: 11/7/2004, 11/12/2005, Batch: '5273293', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
5273293				
AC	InCnt2	GiroirB	10/27/2005 9:07:19	
SC		wagarr	IsBatched	9/30/2005 11:37:43 AM
SC		GiroirB	InPrep	10/27/2005 9:07:19 AM
SC		GiroirB	Prep1C	10/29/2005 10:42:15 AM
SC		ScottM	InPrep2	10/31/2005 6:53:49 AM
SC		ScottM	Prep2C	11/3/2005 2:20:41 PM
SC		DAWKINSO	InCnt1	11/3/2005 9:10:38 PM
SC		DAWKINSO	InCnt2	11/4/2005 10:22:12 PM
AC		GiroirB	10/29/2005 10:42:15	ICOC_RADCALC v4.8.08
AC		ScottM	10/31/2005 6:53:49	RICH-RC-5014 REVISION 6
AC		ScottM	11/3/2005 2:20:41 PM	RICH-RC-5014 REVISION 6
AC		DAWKINSO	11/3/2005 9:10:38 PM	RICH-RC-5014 REVISION 6
AC		DAWKINSO	11/4/2005 10:22:12	RICH-RC-5014 REVISION 6
				RICH-RD-0003 REVISION 4
				RICH-RD-0003 REVISION 4

AC: Accepting Entry; SC: Status Change

STL Richland
Richland Wa.

0/25/2005 5:03:50 PM

Sample Preparation/Analysis

Balance Id: PJ 4000 101

384868, Pacific Northwest National Laboratories,
Pacific Northwest National Lab

CL Sr-90 Prp/SepRC5006(5071)

TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth

SI CLIENT: HANFORD

Pipet #: NA

Report Due: 11/07/2005

Sep1 DT/Tm Tech: 10-28-05 11:09 AM

Sep2 DT/Tm Tech: 11-4-05 11:50 AM

Batch: 5273298 WATER

pCi/L

PM, Quote: SS, 57671

Prep Tech: FABREM

10-25-05

SEQ Batch, Test: None

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HK1L3-1-AD J5I200383-1-SAMP	1000.20g,in	SRTB12674 10/21/05,pd	1.661 1.9440 8330	30	238	100	26	1351	11/5/05 R		
							26	1319	11/6/05 R		
09/20/2005 10:31	AmtRec: 20ML,5XLP	#Containers: 6						Scr: Alpha: 2.01E-06 uCi/Sa	Beta: 1.50E-06 uCi/Sa		
2 HK1MJ-1-AF J5I200383-2-SAMP	1000.40g,in	SRTB12675 10/21/05,pd	1.587 20800 7630					3"	1017	11/2/05 R	
							2c	1351	11/5/05 R		
							2c	1319	11/6/05 R		
09/20/2005 12:16	AmtRec: 20ML,5XLP,4LP	#Containers: 7						Scr: Alpha: 1.30E-03 uCi/Sa	Beta: 3.24E-04 uCi/Sa		
3 HK66R-1-AD J5I220345-1-SAMP	1001.00g,in	SRTB12676 10/21/05,pd	1.602 2.0477 7823					4"	1053	11/2/05 R	
							2d	1351	11/5/05 R		
							2d	1319	11/6/05 R		
09/22/2005 10:06	AmtRec: 20ML,500P,4XLP,2X4LP	#Containers: 8						Scr: Alpha: -1.31E-03 uCi/Sa	Beta: 3.73E-03 uCi/Sa		
4 HK66R-1-AF-X J5I220345-1-DUP	1000.00g,in	SRTB12677 10/21/05,pd	1.711 2.0101 8512					3"	1053	11/2/05 R	
							3A	1351	11/5/05 R		
							3A	1319	11/6/05 R		
09/22/2005 10:06	AmtRec: 20ML,500P,4XLP,2X4LP	#Containers: 8						Scr: Alpha: -1.31E-03 uCi/Sa	Beta: 3.73E-03 uCi/Sa		

10/25/2005 5:03:50 PM

Sample Preparation/Analysis

Balance Id: PJ 4000, 01

384868, Pacific Northwest National Laboratories,
Pacific Northwest National Lab

CL Sr-90 Prp/SepRC5006(5071)

TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth

51 CLIENT: HANFORD

Pipet #: NA

Report Due: 11/07/2005

Batch: 5273298 WATER
SEQ Batch, Test: None

pCi/L

PM, Quote: SS, 57671

Sep1 DT/Tm Tech: 10-28-05 11:09 AM

Sep2 DT/Tm Tech: 11-4-05 11:56 AM

Prep Tech: FABREM 10-25-05

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
5 HLDCH-1-AD J5I240202-1-SAMP		1000.50g,in	SRTB12678 10/21/05,pd	1.616 2.0101 8039			30	911	1129	11/2/05	RS
			YTA14543 Ex:7/10/2006					3c	1351	11/5/05	K
					22.9	160		3b	1319	11/6/05	K
09/23/2005 12:56			AmtRec: 20ML,2X500P,4XLP,2X4LP #Containers: 9					Scr:	Alpha: 1.30E-03 uCi/Sa	Beta: 5.84E-04 uCi/Sa	
6 HLDCJ-1-AD J5I240202-2-SAMP		280.00g,in	SRTB12679 10/21/05,pd	1.580 1.9993 7903				311	1129	11/2/05	RS
			YTA14544 Ex:7/10/2006					3d	1351	11/2/05	K
					23.4			4b	1319	11/6/05	K
09/23/2005 10:21			AmtRec: 20ML,2X500P,4XLP,2X4LP #Containers: 9					Scr:	Alpha: 8.44E-03 uCi/Sa 2.8E-01L	Beta: -1.75E-03 uCi/Sa	
7 HLQ4K-1-AA-B J5I300000-298-BLK		1000.00g,in	SRTB12680 10/21/05,pd	1.435 2.0100 7139				911	1208	11/2/05	K
			YTA14545 Ex:7/10/2006					4b	1351	11/5/05	K
					23.7			4c	1319	11/6/05	K
09/22/2005 10:06			AmtRec: #Containers: 1					Scr:	Alpha:	Beta:	
8 HLQ4K-1-AC-C J5I300000-298-LCS		1000.00g,in	SRSG1133 09/14/05,pd	1.449 2.0149 7191				311	1208	11/2/05	K
			YTA14546 Ex:7/10/2006					4c	1351	11/5/05	R
					23.4			4d	1319	11/6/05	K
09/22/2005 10:06			AmtRec: #Containers: 1					Scr:	Alpha:	Beta:	

STL Richland

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2

Page 2

ISV - Insufficient Volume for Analysis

WO Cnt: 8

Richland Wa.

pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Prep_SamplePrep v4.8.14

10/25/2005 5:03:51 PM

Sample Preparation/Analysis

Balance Id: PJ 4000

CL Sr-90 Prp/SepRC5006(5071)

Pipet #: _____

TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth

Report Due: 11/07/2005

SI CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 5273298

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: FABREM



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
--------------------------------------	-------------------	-----------------------------	------------------------	-----------------	--------------	--------------------	-------------------	----------------	---------------------------------	--------------------------	-----------

Comments:

All Clients for Batch:

384868, Pacific Northwest National Laboratories Pacific Northwest National Lab, SS , 57671

HK1L31AD-SAMP Constituent List:

Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20
HLQ4K1AA-BLK:											
Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:	UCL:	RPD:
HLQ4K1AC-LCS:											
Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20

HK1L31AD-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
HLQ4K1AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
HLQ4K1AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____ Date: _____

11/7/2005 1:30:10 PM

ICOC Fraction Transfer/Status Report

ByDate: 11/7/2004, 11/12/2005, Batch: '5273298', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
5273298				
AC	CalcC	FABREM	10/25/2005 11:28:21	
SC		wagarr	IsBatched	9/30/2005 11:37:43 AM
SC		FABREM	InSep1	10/25/2005 11:28:21 AM
SC		FABREM	InPrep	10/25/2005 3:27:39 PM
SC		FABREM	Sep1C	11/1/2005 1:20:01 PM
SC		BlackCL	InCnt1	11/1/2005 1:32:35 PM
SC		StringerR	Cnt1C	11/2/2005 12:13:50 PM
SC		FABREM	InSep2	11/2/2005 6:59:25 PM
SC		FABREM	Sep2C	11/4/2005 7:10:04 PM
SC		DAWKINSO	InCnt2	11/4/2005 8:07:14 PM
SC		StringerR	CalcC	11/6/2005 3:11:45 PM
AC		FABREM	10/25/2005 3:27:39	
AC		FABREM	11/1/2005 1:20:01 PM	
AC		BlackCL	11/1/2005 1:32:35 PM	
AC		StringerR	11/2/2005 12:13:50	
AC		FABREM	11/2/2005 6:59:25 PM	
AC		FABREM	11/4/2005 7:10:04 PM	
AC		DAWKINSO	11/4/2005 8:07:14 PM	
AC		StringerR	11/6/2005 3:11:45 PM	

AC: Accepting Entry; SC: Status Change

STL Richland
Richland Wa.

10/31/2005 8:31:40 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabFP Tc-99 Prp/SepRC5065
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 11/07/2005

Sep1 DT/Tm Tech:

Batch: 5273266 WATER






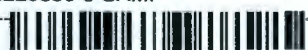

pCi/L

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: GiroirB

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HK641-1-AA J5I220336-1-SAMP  09/22/2005 13:04			125.20g,in	125.20g						
			AmtRec: 20ML,500P	#Containers: 2			Scr:	Alpha: -7.32E-05 uCi/Sa	Beta: 1.26E-04 uCi/Sa	
2 HK641-1-AC-S J5I220336-1-MS  09/22/2005 13:04			124.80g,in	124.80g	TCSG1336 09/27/05,pd					
			AmtRec: 20ML,500P	#Containers: 2			Scr:	Alpha: -7.32E-05 uCi/Sa	Beta: 1.26E-04 uCi/Sa	
3 HK65D-1-AA J5I220336-2-SAMP  09/22/2005 10:06			121.50g,in	121.50g						
			AmtRec: 20ML,500P	#Containers: 2			Scr:	Alpha: -1.72E-05 uCi/Sa	Beta: 2.04E-04 uCi/Sa	
4 HK65H-1-AE J5I220336-3-SAMP  09/22/2005 08:25			126.70g,in	126.70g						
			AmtRec: 20ML,2X500P,2XLP	#Containers: 5			Scr:	Alpha: 1.22E-03 uCi/Sa	Beta: 7.22E-04 uCi/Sa	
5 HK65R-1-AC J5I220336-4-SAMP  09/22/2005 09:00			122.60g,in	122.60g						
			AmtRec: 20ML,2X500P,LP	#Containers: 4			Scr:	Alpha: 4.99E-04 uCi/Sa	Beta: 4.81E-05 uCi/Sa	
6 HK654-1-AA J5I220336-5-SAMP  09/22/2005 11:59			123.40g,in	123.40g						
			AmtRec: 20ML,2X500P	#Containers: 3			Scr:	Alpha: -3.12E-04 uCi/Sa	Beta: 4.44E-04 uCi/Sa	
7 HK69R-1-AE J5I220359-1-SAMP  09/22/2005 10:16			124.40g,in	124.40g						
			AmtRec: 20ML,3X500P,LP,4LP	#Containers: 6			Scr:	Alpha: -5.73E-04 uCi/Sa	Beta: 3.11E-04 uCi/Sa	

10/31/2005 8:31:41 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabFP Tc-99 Prp/SepRC5065
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 11/07/2005

Sep1 DT/Tm Tech:

Batch: 5273266 WATER








pCi/L

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 HK692-1-AE J5I220359-2-SAMP 			124.10g,in	124.10g						
09/22/2005 08:59			AmtRec: 20ML,3X500P,LP,4LP	#Containers: 6			Scr:	Alpha: 7.11E-04 uCi/Sa	Beta: -4.67E-04 uCi/Sa	
9 HLDCC-1-AC J5I240201-1-SAMP 			125.90g,in	125.90g						
09/23/2005 12:03			AmtRec: 20ML,2X500,LP	#Containers: 4			Scr:	Alpha: 2.02E-04 uCi/Sa	Beta: -6.00E-06 uCi/Sa	
10HLDCC-1-AE-X J5I240201-1-DUP 			126.10g,in	126.10g						
09/23/2005 12:03			AmtRec: 20ML,2X500,LP	#Containers: 4			Scr:	Alpha: 2.02E-04 uCi/Sa	Beta: -6.00E-06 uCi/Sa	
11HLDCC-1-AA J5I240201-2-SAMP 			125.90g,in	125.90g						
09/23/2005 08:45			AmtRec: 20ML,2X500	#Containers: 3			Scr:	Alpha: 1.64E-04 uCi/Sa	Beta: -5.11E-05 uCi/Sa	
12HLDCC-1-AA J5I240201-3-SAMP 			125.00g,in	125.00g						
09/23/2005 07:15			AmtRec: 20ML,2X500	#Containers: 3			Scr:	Alpha: -2.36E-05 uCi/Sa	Beta: -2.70E-05 uCi/Sa	
13HLDCH-1-AE J5I240202-1-SAMP 			127.50g,in	127.50g						
09/23/2005 12:56			AmtRec: 20ML,2X500P,4XLP,2X4LP	#Containers: 9			Scr:	Alpha: 1.30E-03 uCi/Sa	Beta: 5.84E-04 uCi/Sa	
14HLDCC-1-AE J5I240202-2-SAMP 			123.70g,in	123.70g						
09/23/2005 10:21			AmtRec: 20ML,2X500P,4XLP,2X4LP	#Containers: 9			Scr:	Alpha: 8.44E-03 uCi/Sa 2.8E-01L	Beta: -1.75E-03 uCi/Sa	

10/31/2005 8:31:42 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabFP Tc-99 Prp/SepRC5065
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 11/07/2005

Sep1 DT/Tm Tech:







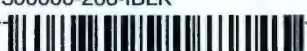
Batch: 5273266 WATER pCi/L

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15HLDCL-1-AA J5I240203-1-SAMP  09/23/2005 12:56			125.60g,in	125.60g						
			AmtRec: 20ML,2X500P	#Containers: 3			Scr:	Alpha: 1.85E-04 uCi/Sa	Beta: 1.65E-04 uCi/Sa	
16HLDCL-1-AC J5I240204-1-SAMP  09/23/2005 10:50			125.30g,in	125.30g						
			AmtRec: 20ML,2X500P,2X4LP	#Containers: 5			Scr:	Alpha: -1.67E-04 uCi/Sa	Beta: -2.70E-05 uCi/Sa	
17HLDCT-1-AC J5I240204-2-SAMP  09/23/2005 08:59			125.20g,in	125.20g						
			AmtRec: 20ML,2X500P,2X4LP	#Containers: 5			Scr:	Alpha: 1.00E-03 uCi/Sa	Beta: 4.05E-04 uCi/Sa	
18HLQ00-1-AA-B J5I300000-266-BLK  09/23/2005 12:03			129.00g,in	129.00g						
			AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:	
19HLQ00-1-AC-C J5I300000-266-LCS  09/23/2005 12:03			132.40g,in	132.40g	TCSE1834 09/15/05,pd					
			AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:	
20HLQ00-1-AD-BN J5I300000-266-IBLK  09/23/2005 12:03										
			AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:	
21HLQ00-1-AE-BN J5I300000-266-IBLK  09/23/2005 12:03										
			AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:	

STL Richland
Richland Wa.Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2
pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Page 3

ISV - Insufficient Volume for Analysis

WO Cnt: 21
Prep_SamplePrep v4.8.14

11/4/2005 3:17:41 PM

ICOC Fraction Transfer/Status Report

ByDate: 11/4/2004, 11/9/2005, Batch: '5273266', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5273266						
AC	CalcC	GiroirB	10/27/2005 9:07:32			
SC		wagarr	IsBatched	9/30/2005 11:37:43 AM	ICOC_RADCALC v4.8.08	
SC		GiroirB	InPrep	10/27/2005 9:07:32 AM	RICH-RC-5016 REVISION 5	
SC		GiroirB	Prep1C	10/29/2005 11:14:00 AM	RICH-RC-5016 REVISION 5	
SC		GreekA	Sep1C	11/2/2005 9:15:47 PM	RICH-RC-5065 REVISION 5	
SC		DAWKINSO	InCnt1	11/2/2005 9:40:49 PM	RICH-RD-0001 REVISION 3	
SC		StringerR	CalcC	11/4/2005 9:08:57 AM	RICH-RD-0001 REVISION 3	
AC		GiroirB	10/29/2005 11:14:00			
AC		GreekA	11/2/2005 9:15:47 PM			
AC		DAWKINSO	11/2/2005 9:40:49 PM			
AC		StringerR	11/4/2005 9:08:57			

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

9/30/2005 11:35:27 AM

Sample Preparation/Analysis

Balance Id: 12446

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabAR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
SI CLIENT: HANFORD

Pipet #: _____

Report Due: 11/07/2005

Sep1 DT/Tm Tech: 10-28-05 au

Batch: 5273295 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

Prep Tech:

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HK1L3-1-AA								
J5I200383-1-SAMP								
09/20/2005 10:31		AmtRec: 20ML,5XLP	#Containers: 6			Scr Rst:	Alpha:	Beta:
2 HK1MJ-1-AA								
J5I200383-2-SAMP								
09/20/2005 12:16		AmtRec: 20ML,5XLP,4LP	#Containers: 7			Scr Rst:	Alpha:	Beta:
3 HK65H-1-AA								
J5I220336-3-SAMP								
09/22/2005 08:25		AmtRec: 20ML,2X500P,2XLP	#Containers: 5			Scr Rst:	Alpha:	Beta:
4 HK65R-1-AA								
J5I220336-4-SAMP								
09/22/2005 09:00		AmtRec: 20ML,2X500P,LP	#Containers: 4			Scr Rst:	Alpha:	Beta:
5 HK66R-1-AA								
J5I220345-1-SAMP								
09/22/2005 10:06		AmtRec: 20ML,500P,4XLP,2X4LP	#Containers: 8			Scr Rst:	Alpha:	Beta:
6 HLDCC-1-AA								
J5I240201-1-SAMP								
09/23/2005 12:03		AmtRec: 20ML,2X500,LP	#Containers: 4			Scr Rst:	Alpha:	Beta:
7 HLDCH-1-AA								
J5I240202-1-SAMP								
09/23/2005 12:56		AmtRec: 20ML,2X500P,4XLP,2X4LP	#Containers: 9			Scr Rst:	Alpha:	Beta:

9/30/2005 11:35:29 AM

Sample Preparation/Analysis

Balance Id: 12445

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabAR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 11/07/2005

Sep1 DT/Tm Tech: 10-28-05 *over*

Batch: 5273295 WATER








pCi/L

PM, Quote: SS , 57671

Sep2 DT/Tm Tech: _____

SEQ Batch, Test: None

Prep Tech: _____

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 HLD CJ-1-AA								
J5I240202-2-SAMP								
								
09/23/2005 10:21		AmtRec: 20ML,2X500P,4XLP,2X4LP	#Containers: 9			Scr Rst:	Alpha:	Beta:
9 HLD CM-1-AA								
J5I240203-2-SAMP								
								
09/23/2005 10:50		AmtRec: 20ML,2XLP	#Containers: 3			Scr Rst:	Alpha:	Beta:
10 HLD CN-1-AA								
J5I240203-3-SAMP								
								
09/23/2005 08:59		AmtRec: 20ML,2XLP	#Containers: 3			Scr Rst:	Alpha:	Beta:
11 HLD CN-1-AE-X								
J5I240203-3-DUP								
								
09/23/2005 08:59		AmtRec: 20ML,2XLP	#Containers: 3			Scr Rst:	Alpha:	Beta:
12 HLQ31-1-AA-B								
J5I300000-295-BLK								
								
09/23/2005 08:59		AmtRec:	#Containers: 1			Scr Rst:	Alpha:	Beta:
13 HLQ31-1-AC-C								
J5I300000-295-LCS								
								
09/23/2005 08:59		AmtRec:	#Containers: 1			Scr Rst:	Alpha:	Beta:
14 HLQ31-1-AD-BX								
J5I300000-295-MBLK								
								
09/23/2005 08:59		AmtRec:	#Containers: 1			Scr Rst:	Alpha:	Beta:

9/30/2005 11:35:34 AM

Sample Preparation/Analysis

Balance Id: 12445

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Pipet #:

Report Due: 11/07/2005

Sep1 DT/Tm Tech: 10-28-05 dw

Batch: 5273295
SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech:

Prep Tech:

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
--------------------------------------	-------------------	-----------------------------	------------------------	-------------------	----------------	---------------------------------	--------------------------	-----------

15HLQ31-1-AE-CM

J5I300000-295-MLCS



09/23/2005 08:59

AmtRec:

#Containers: 1

Scr Rst:

Alpha:

Beta:

16HLQ31-1-AF-BN

J5I300000-295-IBLK



09/23/2005 08:59

AmtRec:

#Containers: 1

Scr Rst:

Alpha:

Beta:

17HLQ31-1-AG-BN

J5I300000-295-IBLK



09/23/2005 08:59

AmtRec:

#Containers: 1

Scr Rst:

Alpha:

Beta:

18HLQ31-1-AH-BN

J5I300000-295-IBLK



09/23/2005 08:59

AmtRec:

#Containers: 1

Scr Rst:

Alpha:

Beta:

Comments:

All Clients for Batch:

384868, Pacific Northwest National Laboratories Pacific Northwest National Lab, SS, 57671

HK1L31AA-SAMP Constituent List:

H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
HLQ311AA-BLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
HLQ311AC-LCS:					
H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
HLQ311AD-MBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:

9/30/2005 11:35:40 AM

Sample Preparation/Analysis

Balance Id: 12445

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Pipet #:

Report Due: 11/07/2005

Sep1 DT/Tm Tech: 10-28-05 dr

Batch: 5273295

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
HLQ311AE-MLCS:								
H-3 RDL:400	pCi/L	LCL:70	UCL:130	RPD:20				
HLQ311AF-IBLK:								
H-3 RDL:400	pCi/L	LCL:	UCL:	RPD:				
HLQ311AG-IBLK:								
H-3 RDL:400	pCi/L	LCL:	UCL:	RPD:				
HLQ311AH-IBLK:								
H-3 RDL:400	pCi/L	LCL:	UCL:	RPD:				
HK1L31AA-SAMP Calc Info:								
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
HLQ311AA-BLK:								
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
HLQ311AC-LCS:								
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
HLQ311AD-MBLK:								
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
HLQ311AE-MLCS:								
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
HLQ311AF-IBLK:								
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
HLQ311AG-IBLK:								
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
HLQ311AH-IBLK:								
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				

Approved By

Date:

10/31/2005 11:15:01 AM

ICOC Fraction Transfer/Status Report

ByDate: 10/31/2004, 11/5/2005, Batch: '5273295', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
5273295				
AC	CalcC	McDowellD	10/28/2005 9:43:47	
SC		wagarr	IsBatched 9/30/2005 11:37:43 AM	ICOC_RADCALC v4.8.08
SC		McDowellD	InSep1 10/28/2005 9:43:47 AM	RICH-RC-5007 REVISION 6
SC		McDowellD	Sep1C 10/28/2005 2:13:18 PM	RICH-RC-5007 REVISION 6
SC		DAWKINSO	InCnt1 10/28/2005 4:12:05 PM	RICH-RD-0003 REVISION 4
SC		DAWKINSO	InCnt1 10/28/2005 4:22:11 PM	RICH-RD-0001 REVISION 3
SC		StringerR	CalcC 10/30/2005 11:07:19 AM	RICH-RD-0001 REVISION 3
AC		McDowellD	10/28/2005 2:13:18	
AC		DAWKINSO	10/28/2005 4:12:05	
AC		DAWKINSO	10/28/2005 4:22:11	
AC		StringerR	10/30/2005 11:07:19	

AC: Accepting Entry; SC: Status Change

STL Richland
Richland Wa.



STL

*** RE-ANALYSIS REQUEST ***

DUE DATE 11-7-05

CUSTOMER PLW

ANALYSIS Uranium

MATRIX water

LOT NUMBER J5I220336, J5I220345, J5I220359, J5I240201, 203, 209

SAMPLE DELIVERY GROUP W04768

OLD BATCH NUMBER 5273265

NEW BATCH NUMBER 5321304

LAB SAMPLE ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1)	LC5 v5820
2)	
3)	
4)	
5)	
6)	
7)	
8)	
9)	
10)	
11)	
12)	
13)	
14)	
15)	
16)	
17)	
18)	
19)	
20)	
LAB QC ID	Assigned with new batch.

11/18/2005 6:39:58 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National Lab

DH UNat_Laser PrpRC5015

SS Total Uranium by KPA

SI CLIENT: HANFORD

Pipet #: _____

Report Due: 11/07/2005

Sep1 DT/Tm Tech:

Batch: 5321304

WATER

ug/L

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

All Tests: 5273265 DHSS, 5273266 FPS5, 5273267 AZS7, 5273293 BCS8, 5273295 ARS6, 5321304 DHSS,

Prep Tech: ,GiroirB

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HK65H-2-AF J5I220336-3-SAMP 09/22/2005 08:25	24.50g,in 10.10 ml							
2 HK65R-2-AD J5I220336-4-SAMP 09/22/2005 09:00	23.60g,in							
3 HK654-2-AC J5I220336-5-SAMP 09/22/2005 11:59	22.40g,in							
4 HK66R-2-AE J5I220345-1-SAMP 09/22/2005 10:06	29.20g,in							
5 HK69R-2-AF J5I220359-1-SAMP 09/22/2005 10:16	27.20g,in							
6 HK692-2-AF J5I220359-2-SAMP 09/22/2005 08:59	22.40g,in							
7 HLDCC-2-AD J5I240201-1-SAMP 09/23/2005 12:03	23.90g,in							

STL Richland

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2

Page 1

ISV - Insufficient Volume for Analysis

WO Cnt: 7

Richland Wa.

pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Prep_SamplePrep v4.8.14

11/18/2005 6:40:00 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabDH UNat_Laser PrpRC5015
SS Total Uranium by KPA
SI CLIENT: HANFORD

Pipet #: _____

Report Due: 11/07/2005

Sep1 DT/Tm Tech:

Batch: 5321304 WATER ug/L
SEQ Batch, Test: None

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

Prep Tech: ,GiroirB

Scott

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 HLDCE-2-AC J5I240201-2-SAMP 09/23/2005 08:45	Final Vol 10.0 ml	25.60g,in						
		AmtRec: 20ML,2X500	#Containers: 3			Scr: Alpha: 1.64E-04 uCi/Sa	Beta: -5.11E-05 uCi/Sa	
9 HLDCE-2-AC J5I240201-3-SAMP 09/23/2005 07:15		26.00g,in						
		AmtRec: 20ML,2X500	#Containers: 3			Scr: Alpha: -2.36E-05 uCi/Sa	Beta: -2.70E-05 uCi/Sa	
10 HLDCH-2-AF J5I240202-1-SAMP 09/23/2005 12:56		24.30g,in						
		AmtRec: 20ML,2X500P,4XLP,2X4LP	#Containers: 9			Scr: Alpha: 1.30E-03 uCi/Sa	Beta: 5.84E-04 uCi/Sa	
11 HLDCH-2-AG-X J5I240202-1-DUP 09/23/2005 12:56		24.90g,in						
		AmtRec: 20ML,2X500P,4XLP,2X4LP	#Containers: 9			Scr: Alpha: 1.30E-03 uCi/Sa	Beta: 5.84E-04 uCi/Sa	
12 HLDCE-3-AF J5I240202-2-SAMP 09/23/2005 10:21		23.90g,in						
		AmtRec: 20ML,2X500P,4XLP,2X4LP	#Containers: 9			Scr: Alpha: 8.44E-03 uCi/Sa 2.8E-	Beta: -1.75E-03 uCi/Sa	
13 HLDCE-3-AG-S J5I240202-2-MS 09/23/2005 10:21		23.00g,in	UNSF2701 10/19/05,pd					
		AmtRec: 20ML,2X500P,4XLP,2X4LP	#Containers: 9			Scr: Alpha: 8.44E-03 uCi/Sa 2.8E-	Beta: -1.75E-03 uCi/Sa	
14 HLDCL-2-AC J5I240203-1-SAMP 09/23/2005 12:56		26.80g,in						
		AmtRec: 20ML,2X500P	#Containers: 3			Scr: Alpha: 1.85E-04 uCi/Sa	Beta: 1.65E-04 uCi/Sa	

11/18/2005 6:40:02 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabDH UNat_Laser PrpRC5015
SS Total Uranium by KPA
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 11/07/2005

Sep1 DT/Tm Tech:

Batch: 5321304 WATER
SEQ Batch, Test: None






ug/L

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

Prep Tech: ,GiroirB



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15HLDGP-2-AD J5I240204-1-SAMP  09/23/2005 10:50	<i>Rtial Vol 100ml</i> 23.40g,in							
16HLDCT-2-AD J5I240204-2-SAMP  09/23/2005 08:59	25.60g,in							
17HQEMX-1-AA-B J5K170000-304-BLK  09/22/2005 08:25	30.50g,in							
18HQEMX-1-AC-C J5K170000-304-LCS  09/22/2005 08:25	24.10g,in							
19HQEMX-1-AD-C J5K170000-304-LCS  09/22/2005 08:25	30.60g,in							

Comments: HK69R-SAMP "Comments: gamma count dup on dif det. Bg"

All Clients for Batch:

384868, Pacific Northwest National Laboratories

Pacific Northwest National Lab, SS , 57671

HK65H2AF-SAMP Constituent List:

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 3
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 19
Prep_SamplePrep v4.8.14

11/26/2005 9:57:54 AM

ICOC Fraction Transfer/Status Report

ByDate: 11/26/2004, 12/1/2005, Batch: '5321304', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5321304						
AC		Cnt1C	GiroirB	11/17/2005 11:53:57		
SC			andersonp	IsBatched	11/17/2005 10:20:12 AM	
SC			GiroirB	InPrep	11/17/2005 11:53:57 AM	
SC			GiroirB	InPrep	11/18/2005 6:27:55 AM	
SC			GiroirB	InPrep	11/18/2005 6:28:30 AM	
SC			GiroirB	Prep1C	11/18/2005 6:51:13 AM	
SC			GiroirB	Prep1C	11/18/2005 6:51:35 AM	
SC			ScottM	InPrep2	11/18/2005 7:51:38 AM	
SC			AndersonP	Rev1C	11/22/2005 11:52:02 AM	
SC			ScottM	Prep2C	11/23/2005 4:05:04 PM	
SC			BarbosaH	Cnt1C	11/25/2005 3:43:32 PM	
AC			GiroirB	11/18/2005 6:27:55		
AC			GiroirB	11/18/2005 6:28:30		
AC			GiroirB	11/18/2005 6:51:13		
AC			GiroirB	11/18/2005 6:51:35		
AC			ScottM	11/18/2005 7:51:38		
AC			ScottM	11/23/2005 4:05:04		
AC			BarbosaH	11/25/2005 3:43:32		
					ICOC_RADCALC v4.8.16	
					RICH-RC-5015 REVISION 4	
					RICH-RC-5016 REVISION 5	
					RICH-RC-5015 REVISION 4	
					RICH-RC-5015 REVISION 4	
					RICH-RC-5015 REVISION 4	
					RICH-RC-5015 REVISION 4	
					RICH-RC-0002 REVISION 7	
					RICH-RC-5015 REVISION 4	
					RICH-RC-5058 REVISION 6	
					Revision 4	

ICOC_RADCALC v4.8.16
 RICH-RC-5015 REVISION 4
 RICH-RC-5016 REVISION 5
 RICH-RC-5015 REVISION 4
 RICH-RC-5015 REVISION 4
 RICH-RC-5015 REVISION 4
 RICH-RC-5015 REVISION 4
 RICH-RC-0002 REVISION 7
 RICH-RC-5015 REVISION 4
 RICH-RC-5058 REVISION 6

Revision 4

AC: Accepting Entry; SC: Status Change

STL Richland
 Richland Wa.

9/30/2005 11:36:00 AM

Sample Preparation/Analysis

Balance Id:

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
IZ COLIFORM BY METHOD 9223
5I CLIENT: HANFORD

Pipet #:

Report Due: 11/07/2005

Sep1 DT/Tm Tech:

Batch: 5273304

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
--------------------------------------	-------------------	-----------------------------	------------------------	-------------------	----------------	---------------------------------	--------------------------	-----------

HLQ4T1AA-BLK:

HLQ4T1AC-LCS:

HK69R1AA-SAMP Calc Info:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HLQ4T1AA-BLK:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HLQ4T1AC-LCS:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____